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SOCIAL SERVICE REVIEW

SOCIAL SERVICE REVIEW

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Do Welfare Sanctions Help or Hurt the Poor? Estimating the Causal Effect of Sanctioning on Client Earnings

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ABSTRACT This article examines the effect of financial sanctions for noncompliance on the earnings of TANF clients. Current research on TANF sanctioning is descriptive, and few studies estimate the effect of sanctions on client outcomes. To estimate the causal effect of sanctioning, we utilize longitudinal data from Florida and a difference-in-difference propensity-score matching estimator. We compare the growth in earnings of sanctioned clients to a comparable sample of nonsanctioned clients four quarters after exiting TANF and find that sanctioning has a statistically significant negative effect on earnings among TANF clients. The effect is consistent across racial groups, larger among clients with at least 12 years of schooling, and generally increases with the frequency of sanctioning. The finding that sanctioned clients exhibit significantly lower growth in earnings than similar nonsanctioned clients suggests that sanctioning may serve to undermine TANF's goals of reducing welfare use and improving earnings in severely disadvantaged families.

The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA) fulfilled President Bill Clinton's promise to "end welfare as we know it" (Noble 1998, 127). PRWORA abolished the main cash assistance program for low-income families, Aid to Families with Dependent Children (AFDC), which was used mostly by single mothers and had been in place since the Social Security Act of 1935. In its place, the 1996 law created the Temporary Assistance for Needy Families (TANF) program, a block grant that allows states to use public funds in a variety of ways beyond providing cash assistance. The new TANF program included several key policy mea-

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asures to help achieve the goals of welfare reform, such as time limits, work requirements, and sanctions (i.e., financial penalties) for failure to comply with TANF rules.

Today, there is broad agreement among scholars that welfare reform succeeded in reducing program caseloads. Although studies reach different conclusions regarding the precise effect of TANF compared to other factors such as the economy or the expansion of the Earned Income Tax Credit (EITC), a comprehensive review finds that TANF is responsible for about a 20 percent decline in welfare caseloads since 1996 (Grogger and Karoly 2005). There is little consensus, however, regarding the mechanisms through which TANF reduced welfare caseloads and thus whether TANF has been successful in promoting economically adequate earnings among the poor.

The first wave of studies examining the short-term effects of TANF generally conclude that TANF has a positive effect on the employment and earnings of single mothers, yet the improvement in earnings is much more inconsistent and modest in comparison to the gain in employment (Blank 2002; Grogger and Karoly 2005). More recent studies, which examine the long-term effects of TANF across the income distribution, are less optimistic and suggest that the most disadvantaged poor women are actually worse off since the implementation of TANF, as indicated by poverty rates, average earnings, and other indicators (Ziliak 2009; Shaefer and Edin 2013). Concerns over the possible negative effects of TANF on the well-being of the poor are also heightened by several alarming trends. Between 1994 and 2005, the percentage of TANF-eligible families receiving TANF decreased from 84 percent to only 40 percent (US GAO 2010). This figure is undoubtedly lower in the aftermath of the 2009 recession, due to a combination of increasing poverty rates and lack of growth (and even a continued decline in many states) in the TANF rolls. The number of families living in extreme poverty (less than \$2 per person a day) increased sharply from 1.46 million in 1996 to 2.4 million in 2011, and most of the increase was concentrated in families affected by welfare reform (Shaefer and Edin 2013). Finally, there is increasing concern over the growing population of “disconnected women,” defined as the percentage of low-income women who report themselves as neither working nor on welfare (Blank and Kovak 2008, 12). According to some estimates, the size of this population doubled between the mid-1990s and mid-2000s and in recent years has stood at 20–25 percent (depending on the precise definition) of all low-income women (Blank and Kovak 2008).

These trends suggest that TANF is doing relatively little to improve the lives of the poor. But could TANF actually be contributing to the worsening condition of the poor? And if so, what specific TANF policies are producing such an effect? Or has TANF helped the poor to become self-sufficient, suggesting that the poor would be even worse off if TANF were not in place? In this article, we seek to address these questions by estimating the effect of financial sanctions for noncompliance on the earnings of TANF clients. Although financial sanctions are one of the most important policies within TANF, most of the research on sanctions is descriptive, and only a handful of studies seek to estimate the effect of sanctions on client outcomes (Meyers et al. 2006). The lack of research on this question is undoubtedly due in large part to the methodological challenges of estimating the causal effect of sanctions. For example, many studies of program effects rely on subjective data (i.e., survey data), yet such data are found to underestimate the degree of sanctioning because many clients do not realize that they are sanctioned (Hasenfeld, Ghose, and Larson 2004). Sanction policies also differ in important ways across states, introducing heterogeneity in national or multistate samples. But perhaps most important, it is now well established that sanctioned clients differ from nonsanctioned clients in ways that are likely correlated with employment outcomes (Meyers et al. 2006). Because there are no random assignment evaluations of sanction policy, researchers must rely on observational data, which are plagued by this inherent selection bias.

Our analysis relies on administrative data from a single state (Florida), which helps to overcome the challenges posed by survey data and policy heterogeneity across states. To estimate the causal effect of sanctioning, we use longitudinal data and a difference-in-difference propensity-score matching (PSM) estimator, which has been successfully used to generate unbiased estimates of the earnings effects of participation in job-training programs (Heckman, Ichimura, and Todd 1997, 1998; Heckman, Ichimura, Smith et al. 1998; Smith and Todd 2005; Mueser, Troske, and Gorislawsky 2007). We treat sanctioned clients as our treatment group and compare their growth in earnings to a comparable sample of nonsanctioned clients four quarters after exiting the first TANF spell.

THE EFFECT OF TANF SANCTIONS: THEORY AND EVIDENCE

Sanctions have long been used by caseworkers to encourage compliance with state welfare rules. Since the implementation of welfare reform, how-

ever, sanctions have come to play a more prominent role in welfare implementation because clients now confront stricter work requirements, narrower exemption criteria, an expanded menu of behaviors subject to sanction, and stronger penalties for noncompliance (Hasenfeld et al. 2004). Indeed, most analysts agree that sanctions are a linchpin of the successful effort to transform welfare from a system focused on providing cash benefits (AFDC) to one focused on the promotion of participation in the workforce (TANF).

Federal legislation requires that TANF clients be subject to a reduction in benefits for failure to follow a number of different program rules. The vast majority of sanctions, however, are imposed for work requirements. Under TANF, states have a range of options in determining exactly how benefits should be reduced, the most important of which include whether to reduce the benefit for the adult(s) or the entire family and whether and when to impose a partial or full reduction of benefits. Twenty-one states adopted the strictest combination of these choices, enforcing what are referred to as “immediate full-family sanctions.” In these states, the entire TANF family is immediately removed from the TANF rolls at the first instance of noncompliance. An additional 21 states use what are commonly referred to as “gradual full-family sanctions,” which remove families from the TANF rolls only after continued noncompliance (usually after a second sanction within a given period of time). The remaining eight states enforce what are known as “partial sanctions,” which result in a partial reduction of benefits (usually affecting only the adult portion of the grant; Kassabian et al. 2011).

Welfare experts agree that the implementation of sanctions under TANF has greatly contributed to the historic decline in the welfare caseload since 1997. In one of the first studies to document the full effects of sanctions in the TANF era, Goldberg and Schott (2000) estimate that the number of families who lost benefits from 1997 to 1999 was close to 500,000, or a quarter of the reduction in the TANF caseload during that period. Other studies use state-level panel data and rigorous econometric methods to control for changes in other programs, as well as economic conditions. These studies conclude that states with the strictest sanctioning policies experienced anywhere from 15 to 40 percent greater caseload reduction than states with the least stringent policies (CEA 1999; Rector and Youssef 1999; Mead 2000; MaCurdy, Mancuso, and O’Brien-Strain 2002; Danielson and Klerman 2008).

Several studies also examine the characteristics of sanctioned families, using either surveys of TANF recipients or state administrative data. The findings converge on the conclusion that sanctioned clients tend to exhibit similar demographic characteristics as those of long-term welfare recipients under AFDC (Pavetti, Derr, and Hesketh 2003; Wu et al. 2006). Specifically, these studies find that the probability of being sanctioned is related to a client's race (nonwhite), marital status (single), age (younger), family size (larger), education level (lower) and job experience (less; Born, Caudill, and Cordero 1999; Koralek 2000; Westra and Routely 2000; Mancuso and Lindler 2001; Kalil, Seefeldt, and Wang 2002; Hasenfeld et al. 2004). Together with findings on the overall incidence of sanctioning, these studies suggest that sanctioning practices greatly affect the size and composition of the TANF population.

While it seems clear that sanctions contributed to the decline in welfare caseloads, there is relatively little evidence concerning their effect on employment and earnings. Advocates of what is often called a "get tough approach" to welfare reform argue that sanctions should be expected to improve employment and earnings through their instructional value to the poor. One of the most prominent advocates of this argument is Lawrence Mead (1986), who came out as an early proponent of sanctions in welfare when he noted, "Programs that set no clear standards and possessed no sanctions over their clients could do little to enhance commitment. . . . Clients were free to use the benefits they received wisely or foolishly" (50).

Mead (1998) later makes the argument that the nonworking poor, including single mothers on welfare, are different than other people. When it comes to accepting personal responsibility for their economic circumstances and disciplining themselves to take a job and keep it, Mead argues that government has a primary role in telling the nonworking poor what they need to do. Mead (1997) sees sanctions as central to what he calls the "new paternalism" by teaching the poor that there are economic consequences for failure to comply with obligations associated with work. According to this perspective, if you do not show up, if you fail to complete assigned tasks, or if you do not work a sufficient number of hours, your benefits should be reduced just as would your paycheck, thereby communicating that it is your own personal responsibility to achieve an adequate income. According to this logic, imposing discipline on clients via sanctions educates the client in the lessons of personal responsibility that they evidently had not been able to learn on their own. Given this perspective,

Mead (2005) became an outspoken critic of partial sanctions and a strong proponent of the strictest kind of sanctions—those that reduce the benefits for the entire family at the first instance of an infraction.

Over time, Mead's thinking disseminated throughout the new welfare regime from top to bottom. In 2005, President George W. Bush's Secretary of Health and Human Services Michael Leavitt stated, "The purpose of sanctions is to encourage compliance with work requirements leading to self-sufficiency. A critical benefit of strong work expectations and activities is the ability to acclimate recipients to a working lifestyle—not simply learning how to do a specific job, but to learn through experience what it takes to be employed and remain employed. A weak sanctioning policy could undercut these expectations and do serious damage to a family's prospects to achieve self-sufficiency" (US House of Representatives, Committee on Ways and Means 2005, 33). This perspective on the positive effects of sanctioning can also be seen on the ground. As one welfare-to-work contract agency in Florida explains in its mission statement: "The failure or refusal of individuals to become fully engaged in work activities and alternative plan activity may result in time-limited benefits running out before the family can become economically self-sufficient. As a means of deterring such an outcome, the Welfare Transition Program design calls for strong penalties to be applied to families when customers fail or refuse to participate without good cause" (WorkNet Pinellas 2011, 13). In other words, benefits are sanctioned so that clients can learn to make better decisions faster for their families.

Despite the optimism of sanction advocates, many experts and advocacy groups criticize the tough sanction policies on the grounds that their application ultimately leads to less progress toward adequate earnings among those whose benefits are sanctioned compared to nonsanctioned clients. This possibility is bolstered by a substantial literature in economics, which finds that exogenous, negative income shocks have negative effects on future earnings as well as other measures of family well-being that may indirectly affect parental earnings (Jacobson, LaLonde, and Sullivan 1993; Stevens 1997; Page, Stevens, and Lindo 2009; Lindo 2011). Most of these studies measure negative income shocks by examining job displacement (e.g., layoffs). The logic of this effect arguably extends to the loss of TANF and food stamp benefits, especially in light of evidence that negative income shocks may have more severe negative effects at the lower end of the in-

come distribution (e.g., Oreopoulos, Page, and Stevens 2008; Page et al. 2009).¹

Research also shows that sanctions are applied to the most disadvantaged clients, those who face major barriers to work that are beyond their control, and that sanctions simply serve to exacerbate their problems. For example, according to Vicki Lens (2006), local county welfare offices and advocacy groups in California cite “illness or a disability (84 percent), followed by a lack of transportation (70 percent) and then child care (42 percent), as the most common reasons why clients were unable to comply with the work rules” (264). Similar responses are given by welfare agencies in other states (e.g., Iowa, New York, Utah; Lens 2006). The problem that this creates is illustrated in the following excerpt from an interview with a sanctioned client (Rainford 2004, 301): “Do you know I would have been off welfare 2 years ago if they weren’t so thickheaded about helping me? My son and I wouldn’t need their money ’cause I would have . . . a good job. Instead, here we are . . . stuck in poverty. . . . If they lifted the sanction, I could get child care. I could get help with transportation. If they stopped sanctioning me, I could get a job.” Do sanctions help clients, as sanctioning advocates would suggest? Or do they impede progress toward adequate earnings, as critics claim?

Unfortunately, there are no random assignment evaluations of sanction policy regarding effects on working and earnings under TANF (Meyers et al. 2006). However, David Greenberg, Andreas Cebulla, and Stacey Bouchet (2005) conducted a meta-analysis of 79 AFDC demonstration projects. They regressed several measures of client outcomes (including earnings) on program characteristics, along with measures of client characteristics and indicators of the local economic context. The authors find that the program sanction rate is positively related to earnings at several points after exit, suggesting that sanctions may actually improve client well-being. Yet, as the authors note, these results are based on AFDC, where sanctions are applied much more selectively and relatively infrequently, and it is therefore unknown if or how they apply to the greater use of sanctions under TANF.

1. The experience of a sanction is also likely to be exogenous for many clients given survey evidence that demonstrates that many sanctioned clients do not understand the rules, and, even when their benefits are sanctioned, they often are unaware that they are in sanction status (Hasenfeld et al. 2004).

Most analyses of the effect of sanctioning rely on research designs that either compare women (or children) in strong-sanction states to women (or children) in weak-sanction states or compare the outcomes of sanctioned clients to those of nonsanctioned clients (either with or without statistical controls). Among the studies that compare across states, two studies find positive effects of sanctioning. Using state panel data, Rebecca Blank and Robert Schoeni (2003) find that the strength of work penalty policies (including both strict sanctions and time limits) is positively related to growth in family income throughout the late 1990s, although the effect seemed to disappear during the post-2000 period. More recently, in their analysis of the anticipated effects of adopting immediate full-family sanctions in California, Caroline Danielson and Debbie Reed (2009) examine pooled cross-sections of Current Population Survey data to estimate the effect of state sanction policies and conclude that “our estimates imply that poverty among children in single-mother families in California would be slightly lower if the state adopted a gradual or immediate grant-elimination sanction policy” (v). One limitation of both studies, of course, is that they do not distinguish welfare users from nonusers, and they do not measure the frequency with which sanctions are applied in the state.

A larger number of studies compare the outcomes of sanctioned clients to nonsanctioned clients to estimate the sanction effect. Many of these studies focus on simple comparisons between sanctioned and nonsanctioned leavers, and nearly all report lower rates of employment, lower earnings, and higher rates of hardship among sanctioned clients (Goldberg and Schott 2000; Westra and Routely 2000; Richardson et al. 2002; Ong and Houston 2003). This is not unexpected, since the probability of being sanctioned is negatively related to several indicators of potential job market success, including education level and job experience (Born et al. 1999; Koralek 2000; Westra and Routely 2000; Mancuso and Lindler 2001; Kalil et al. 2002; Hasenfeld et al. 2004). While this finding is noteworthy in that it underscores that the most disadvantaged are more likely to be sanctioned, it leaves the question of the causal effect of sanctioning on earnings unanswered because of unresolved selection issues.

The most valuable studies of the effects of sanctions are those that control for differences in the characteristics of sanctioned and nonsanctioned clients. Although fewer in number, these studies consistently find that sanctioned clients experience greater hardship and lower earnings upon exit than unsanctioned clients (Cherlin et al. 2002; Kalil et al. 2002;

Lee, Slack, and Lewis 2004; Reichman, Teitler, and Curtis 2005). However, much of this literature can be called into question: since all of these studies are cross-sectional, the sample sizes for the number of sanctioned clients are generally small, and only two studies control for pre-TANF levels of hardship or earnings (Lee et al. 2004; Reichman et al. 2005). The current study provides a more rigorous estimation of the effects of sanctions on earnings by using longitudinal administrative data from the state of Florida.

DATA AND MEASUREMENT

The data for this study come from administrative records of clients in Florida's Welfare Transition (WT) program, supplemented with earnings data from unemployment insurance (UI) records. Although a national sample would be preferable in some ways, relying on administrative data from a single state offers two advantages. First, a single-state sample ensures that all clients in our sample are subject to the same sanction policy, thus minimizing heterogeneity in sanctioning rules and procedures that might confound our results. Second, by using state administrative data to measure the occurrence of a sanction, we can eliminate the measurement error that may be present in (national) survey data due to the fact that many clients do not realize that they are sanctioned (Hasenfeld et al. 2004). The trade-off, of course, is that we cannot generalize our results to the entire country nor can we estimate the effect of different types of sanction policies (immediate, gradual, full-family, and partial) on client outcomes.

The data set spans the period from January 2000 through September 2003. The choice of this period is ideal in at least two respects. First, it is a period of relative stability in the TANF caseload. By 2000, the massive decline in state caseloads had largely subsided, and although the period was marked by a recession, it was by historical standards relatively brief and mild. Second, the entire analysis period occurred prior to TANF reauthorization, meaning that there were no major policy changes that might confound our results.

While no state can represent all states in a statistical sense, the selection of Florida for our analysis offers many additional advantages. First, Florida's welfare-to-work program (WT) for years had been hailed for its successes and held up as a model to be emulated elsewhere, especially regarding its state-of-the-art information management system, its performance management contracts for enforcing accountability with provider agencies,

and its integration of welfare-to-work into the workforce boards around the state—that is, combining welfare reform from the 1996 law with the employment programming offered under the Workforce Investment Act of 1997 (see Austin 2003; Soss, Fording, and Schram 2011). Second, Florida adopted “some of the strictest time limits and work requirements in the nation” and broadened the pool of clients subject to sanctions by creating “few possibilities for exemptions” (Botsko, Snyder, and Leos-Urbel 2001, 4). The sanctions themselves also fall at the strong end of the spectrum, resulting in an immediate, full-family loss of TANF benefits and a reduction of food stamp benefits to the fullest extent permitted by federal law (Botsko et al. 2001, 6).² Moreover, as figure 1 shows, Florida employs sanctions at an extremely high rate compared to other states with full-family sanctions.³ Between 2000 and 2004, sanction rates in the Florida WT program were fairly stable, with seasonal fluctuations falling around a mean of about 3,200 sanctions per month, more than one-third of all monthly exits in Florida during this period. Thus, given the severity of the sanction penalty, along with the frequency with which it is enforced, if sanctions truly serve to motivate supposedly lazy clients to follow the rules, then there should be evidence of this in Florida. Finally, the selection of Florida also aids our analysis because Florida is one of the most racially diverse states in the country, with sizable black and Latino populations that extend to the TANF population. Between January 2000 and March 2004, 36.2 percent of TANF adults were black, 33.7 percent were white (non-Latino), and 28.5 percent

2. Although it imposes full-family penalties at the first infraction, Florida uses sanction duration as a way to raise penal severity when violations accumulate. First infractions terminate cash aid for at least 10 days; second and third instances result in terminations of at least 1 month and 3 months, respectively. Based on data gathered by the US General Accounting Office, it appears that Florida falls near the middle of the pack for sanction duration: “In 23 states, benefits are restored fully as soon as compliance occurs. In another 21 states, the first sanction continues for 1 month or until families return to compliance, whichever is longer, while the remaining 7 states extend the length of the first sanction for a minimum of 2 or 3 months” (US GAO 2000, 17).

3. Efforts to compare state sanction rates are complicated by differences in the severity of state sanction policies and in the ways that states calculate their sanction rates. The available evidence suggests that Florida’s sanction rates fall at the high end of the spectrum. While sanctions account for about one-third of all Florida case closings, federal data indicate that they accounted for only 7 percent of all case closings nationwide in 2002 (US Department of Health and Human Services 2004).

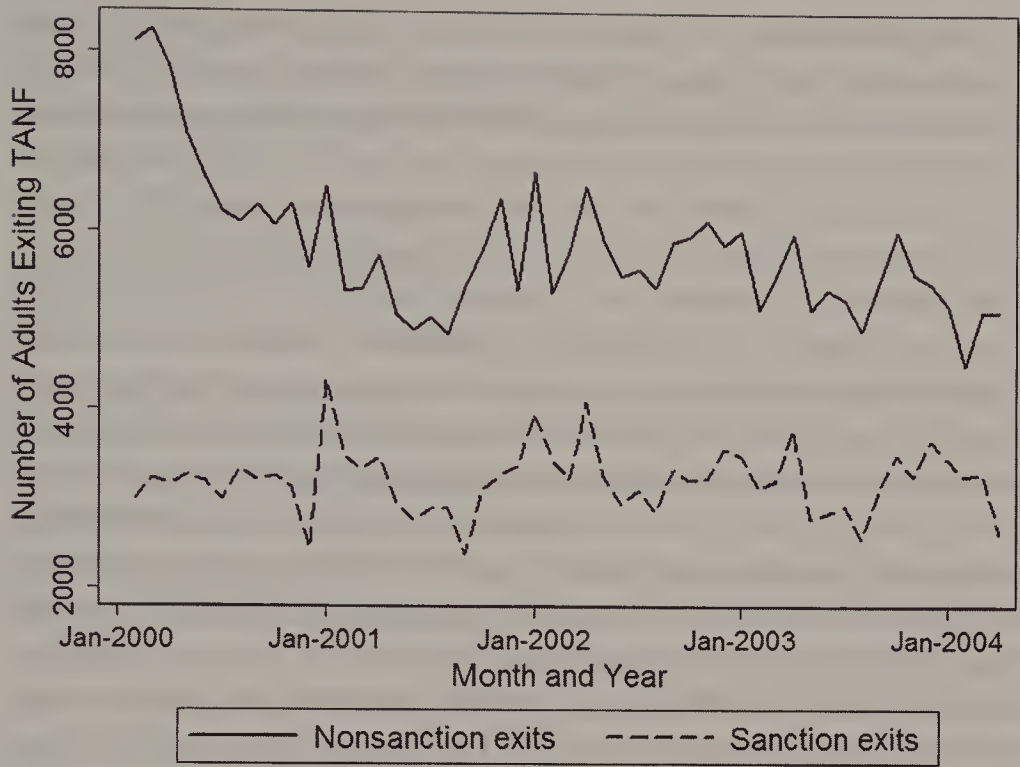


FIGURE 1. Total TANF sanction exits and nonsanction exits in Florida, January 2000–March 2004. Source: WT administrative records, Florida Department of Children and Families.

were Latino. In combination with Florida’s large population, we are able to offer the first analysis of differences in the effect of sanctioning across racial and ethnic subgroups.

The data reflect several other advantages over past studies. First, like Joo Lee, Kristen Slack, and Dan Lewis (2004), we use longitudinal data and control for prior earnings. However, unlike their study, we limit our sample to TANF clients who have not used TANF in the preceding four quarters, which arguably improves the validity of past earnings as an indicator of human capital. In addition, we measure earnings at a consistent time lag in relation to the beginning of the TANF spell. This was impossible to achieve in prior studies due to data constraints and resulted in the measurement of past hardship (Reichman et al. 2005) and past earnings (Lee et al. 2004) at time lags that varied by as much as a year or more across clients. Third, we examine the effects of being sanctioned across two groups of clients: those whose benefits were sanctioned just once and those who were sanctioned two times or more. For a variety of reasons, there may be important differences in the effect of sanctioning across these two different groups.

Our sample consists of quarterly data on all unmarried female clients who are less than 50 years of age at the time of their entrance in the WT program and have at least one child less than 19 years of age. We observe all such clients who entered and exited their first TANF spell during the 21-month period between January 2001 and September 2002. Table 1 presents descriptive statistics for each of our three client groups for all variables used in our analysis. Table 1 indicates that of the 36,319 clients who met the criteria for inclusion, 15,768 (43 percent) received one or more sanctions. Of those clients whose benefits were sanctioned, the vast majority (82 percent) were sanctioned only once during the period of analysis. As expected, sanctioned clients exhibited substantially lower earnings than nonsanctioned clients prior to entering TANF. Indeed, nonsanctioned clients earned approximately \$600 more than multisanctioned clients and approximately \$400 more than once-sanctioned clients, a full year before entering TANF. The table also suggests that there are some additional differences between client groups, but the differences are modest in size for most other variables. Sanctioned clients are slightly less educated, younger, and are slightly more likely to be citizens. The biggest differences across client groups can be seen in their racial and ethnic composition. As many studies confirm, sanctioned clients are more likely to be black or

TABLE 1. Summary Statistics for Sanctioned and Nonsanctioned TANF Clients in Florida

Client Characteristic	Once		
	Nonsanctioned	Sanctioned	Multisanctioned
Avg. earnings (4 quarters prior to entry; \$)	1,978.63	1,554.64	1,386.41
Avg. education (years)	10.56	9.72	10.50
Avg. age (years)	30.21	29.43	28.37
Avg. number of children	1.89	1.87	1.99
Avg. age of youngest child	5.23	5.34	4.98
% citizens	90.31	92.37	93.28
% white non-Hispanic	34.68	39.64	30.73
% black	43.18	42.54	54.19
% Hispanic	22.14	17.82	15.07
County poverty rate (2000)	12.65	12.38	12.15
Population (county)	937,154	878,257	929,377
Avg. wage in retail trade sector (annual 2002)	22,618	22,693	22,942
Number of retail trade employees (county 2002, monthly avg.)	53,332	50,416	53,283
Number of retail trade firms (county 2002)	4,119	3,790	4,009
Sample size	20,551	12,895	2,873

Note.—Avg. = average. Our sample includes all unmarried female clients under age 50 with at least one child under age 19 who entered and exited TANF for the first time during the 21-month period between January 2001 and September 2002. All clients are observed during the fourth quarter after exiting the first TANF spell.

Latina. In Florida, we find some evidence of this pattern, but the difference between the sanctioned and nonsanctioned clients appears to be driven by the multisanctioned group, which is disproportionately more likely to consist of black clients.

ESTIMATION AND RESULTS

We begin our analysis of the effects of sanctioning with a graphical analysis of inflation-adjusted client earnings based on a simple difference-in-difference framework. We measure earnings for each client at 10 different points in time, with each observation point defined in relation to the time of TANF entry and exit. Specifically, we measure quarterly earnings for each client during each of the four quarters prior to entering TANF, the quarter of TANF entry, the quarter during the TANF exit (for the nonsanctioned clients) or TANF sanction (for the sanctioned clients), and the four quarters after the TANF exit (or TANF sanction). It is important to note that throughout all of our analyses, clients may be on or off TANF during the post-exit period, including the quarter during which we observe client wages.

The results of our descriptive analyses are presented below in figures 2–4. Each of our graphs defines two different treatment groups. The once-sanctioned group consists of clients who were sanctioned only once, during the first TANF spell. The second treatment group is referred to as multisanctioned and consists of clients whose benefits not only were sanctioned during the first spell but who also were sanctioned at least once more during a subsequent TANF spell during the four-quarter post-exit period. The control group in each case consists of all clients who were never sanctioned at any time between the first TANF spell and the end of the observation period (i.e., four quarters after exit).⁴

Figure 2 reflects results for all clients, regardless of education level or racial or ethnic background. Because these analyses do not control for differences between sanctioned and nonsanctioned clients, the results reveal a clear hierarchy of earnings across the groups during the quarters prior to WT entry. The clients who would never be sanctioned had higher earnings than once-sanctioned clients, who in turn had higher earnings than

4. We omit clients who were not sanctioned during the first spell but who were sanctioned in a subsequent spell.

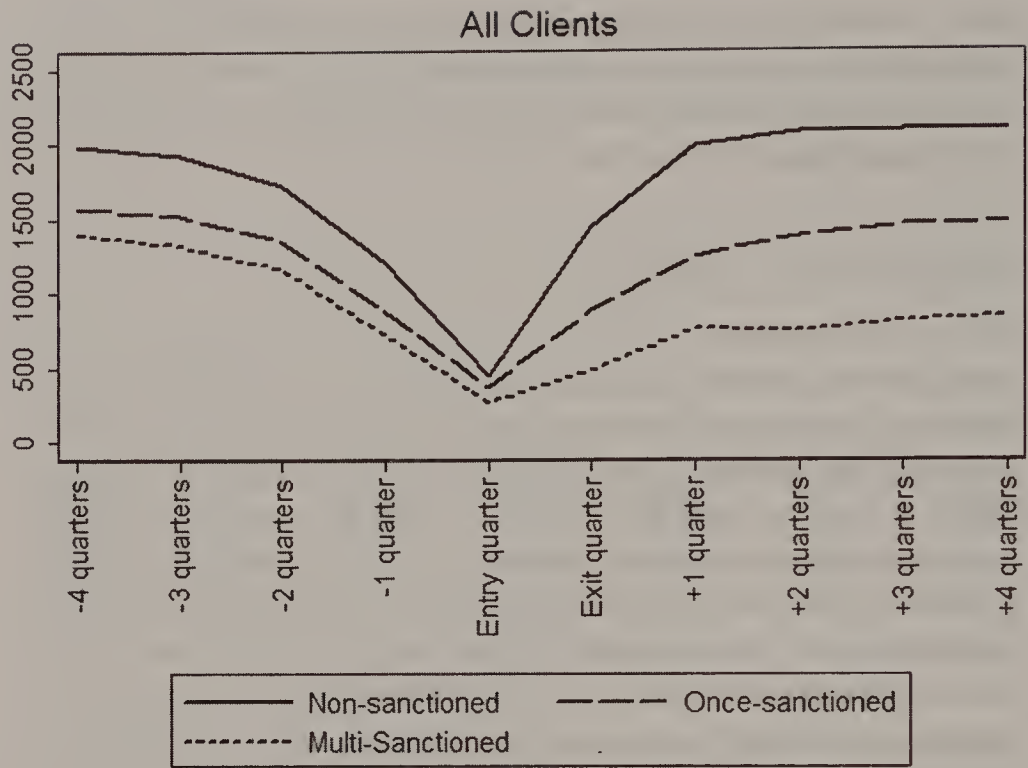


FIGURE 2. Quarterly earnings of TANF clients, by sanction status. Note: this sample includes all unmarried female clients under age 50 with children who entered and exited TANF for the first time during the 21-month period between January 2001 and September 2002.

multis sanctioned clients. This same pattern reappears in the post-TANF quarters, but the earnings gaps expand. Prior to WT entry, once-sanctioned clients earned approximately \$400 per quarter less than nonsanctioned clients; after exit, this gap rises to over \$600 per quarter. And, prior to entry, multis sanctioned clients earned approximately \$600 per quarter less than clients in the nonsanctioned group; after exit, this gap doubles to more than \$1,200 per quarter.

To gauge the substantive meaning of the results in figure 2, we take a closer look at the clients who are most successful in the program, those who are never sanctioned. These clients had very low earnings prior to entering the program, approximately \$1,900 per quarter (\$633 per month), and experienced an increase of only 5.6 percent in real earnings over a period that spans more than 2 years. By the fourth quarter after exit, the average quarterly earnings for the never-sanctioned group is only \$2,104 (\$701 per month), a figure that remains far below the poverty line for any family size.

For sanctioned clients, the situation is even more dire, with earnings declining rather than growing between the year prior to entering TANF and the post-exit period. Specifically, once-sanctioned clients experienced a decrease of 6.0 percent, despite the fact that they were never sanctioned again. The erosion of earnings among clients sanctioned more than once is especially dramatic. By the fourth quarter after exit, these clients earned an average of \$841 (\$280 per month). This represents an average decrease in real earnings of 39 percent when compared to the fourth quarter prior to entering WT.

We replicated this analysis by racial or ethnic group and by education level. Preliminary analysis suggested that sanctioning may affect the earnings of clients with higher levels of education more than others. This seems plausible, since clients with higher levels of human capital, and thus higher earnings potential, might experience income losses if the disruption in household income due to sanctioned benefits impedes their ability to work, for example, by making transportation and child care unaffordable. It also seems plausible that the effect of sanctions on earnings might differ by race. Therefore, we divided the sample into groups, based on race or ethnicity (fig. 3) and on education level (less than high school degree and high school or more; fig. 4). The results reveal remarkably similar patterns when comparing the associations between sanctioning and earnings for each group. In each graph, the gap in earnings between the two sanctioned groups and the nonsanctioned group increases from the pre-TANF period to the post-exit period. The relationships between sanctioning and earnings seem to be somewhat stronger for Latina clients compared to black and white clients, although the differences are not large. A somewhat bigger difference can be seen when comparing the results across education levels, with a stronger negative relationship between sanctioning and earnings among better-educated clients than less educated clients. Specifically, among clients with less than 12 years of education, the earnings growth of nonsanctioned clients (fourth quarter pre-TANF to fourth quarter post exit) exceeded that of once-sanctioned and multisanctioned groups by \$43 and \$463, respectively. In contrast, among clients with at least 12 years of education, the equivalent figures are \$367 and \$881, respectively. Given this evidence of heterogeneity in the associations between sanctions and earnings, we conduct separate analyses of sanction effects by combinations of racial/ethnic identity and educational level in our matching analyses below.

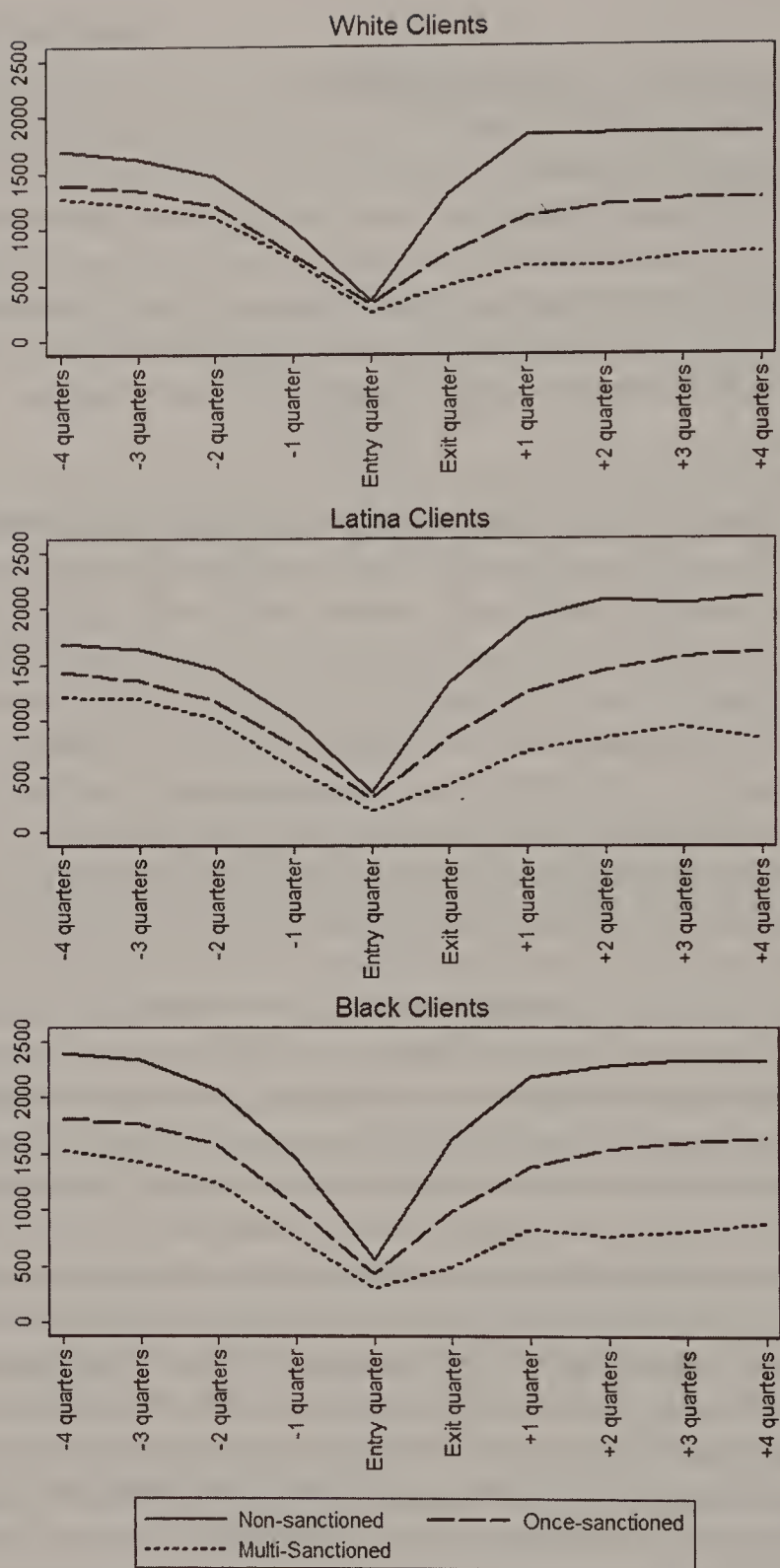


FIGURE 3. Quarterly earnings of TANF clients by sanction status and race. Note: the samples used to produce these graphs include all unmarried female clients under age 50 with children who entered and exited TANF for the first time during the 21-month period between January 2001 and September 2002.

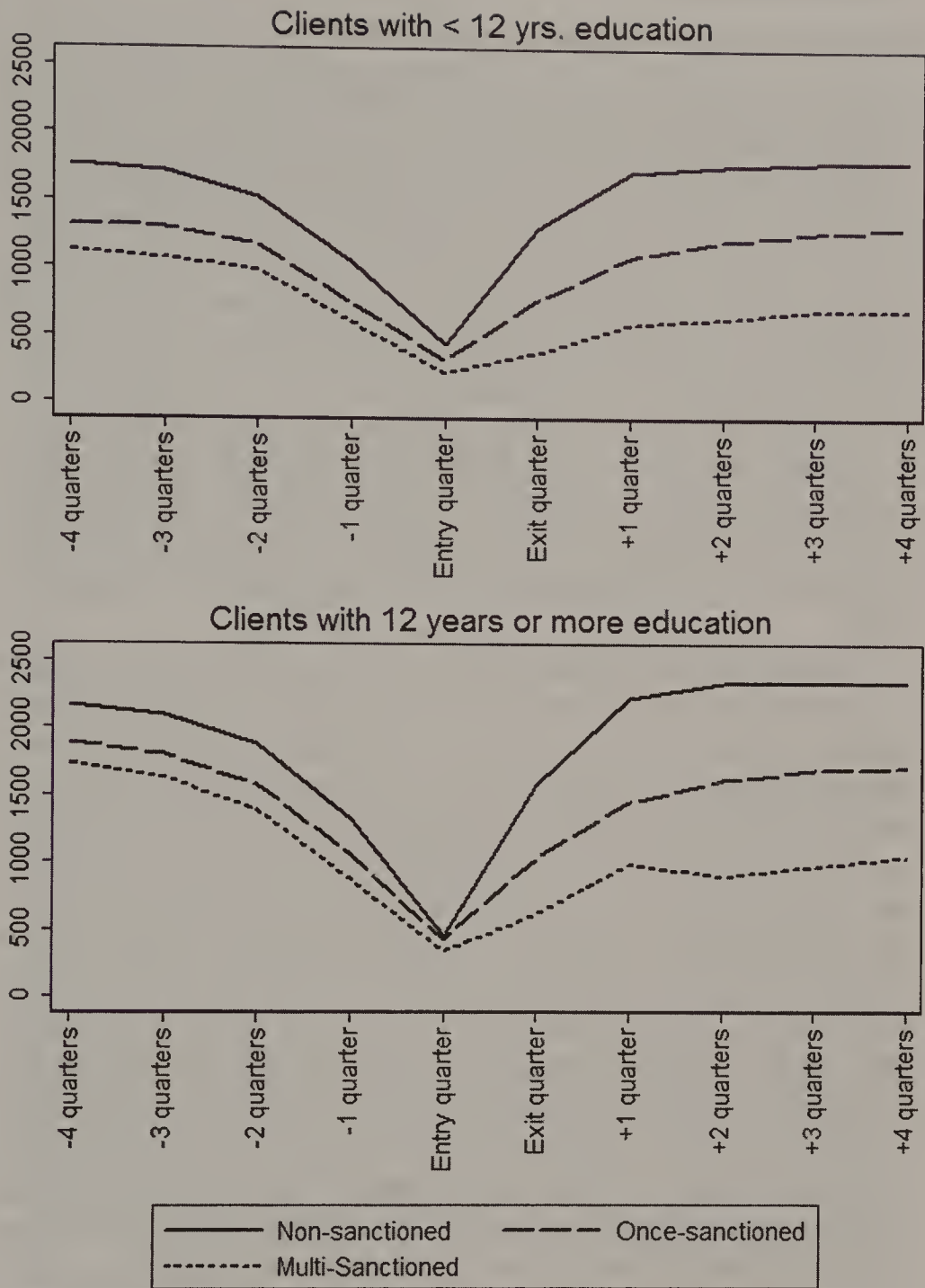


FIGURE 4. Quarterly earnings of TANF clients by sanction status and education level. Note: the samples used to produce these graphs include all unmarried female clients under age 50 with children who entered and exited TANF for the first time during the 21-month period between January 2001 and September 2002.

PROPENSITY-SCORE MATCHING ANALYSIS

The primary weakness of the graphical analyses presented in figures 2–4 is that the assignment of clients to the treatment (sanctioned) and control (nonsanctioned) groups is not random, and therefore the estimation of the sanction effect may be biased due to the existence of confounding factors. Past studies of sanction outcomes either fail to control for such differences or use traditional multivariate methods (i.e., ordinary least square [OLS] or logit/probit) to control for differences between sanctioned and nonsanctioned clients. In contrast to all of these prior studies, our strategy for dealing with the endogenous selection of clients into the sanctioned and nonsanctioned groups is to use a difference-in-difference PSM estimator, which has been shown to produce unbiased estimates of the effect of participation in job-training programs on earnings (Heckman et al. 1997, 1998; Heckman, Ichimura, Smith et al. 1998; Smith and Todd 2005; Mueser et al. 2007).

Propensity-score matching is based on the idea that bias is reduced when the estimation of the treatment effect is made using treated and control subjects who are as similar as possible (Rosenbaum and Rubin 1983). Since matching subjects on more than just a few characteristics is usually not possible due to sample size limitations, this method relies on a single summary measure of pretreatment characteristics of each subject (the propensity score), which makes matching feasible. Although there are several matching strategies to choose from to construct the counterfactual comparison group for treated individuals, we rely on a kernel matching method introduced by James Heckman, Hidehiko Ichimura, and Petra Todd (1997, 1998). In the kernel matching method, rather than matching each treated individual with a single counterfactual case in the control group, each treated individual is matched with a weighted average of all control group subjects, with weights that are inversely proportional to the distance between the propensity scores of treated and control group subjects. This method is often preferred because it relies on more information from the sample.

For each client group, the outcome variable is the change in earnings, measured between the fourth quarter prior to TANF entry and the fourth quarter after either exiting TANF or being sanctioned. Conceptually speaking, our parameter of interest is the difference in earnings growth between the treatment group and the otherwise similar, counterfactual control group—the average treatment effect on the treated (ATT), which is pre-

cisely what PSM is designed to estimate. The analysis proceeds in several steps. First, we estimate a propensity score for treated (sanctioned) and untreated (nonsanctioned) clients by estimating a probit regression of the probability of receiving a sanction (or for the multis sanctioned group, multiple sanctions). The independent variables included in this regression are quarterly client earnings for each of the four quarters prior to TANF entry, client age, the number of children in the TANF unit, the age of the youngest child in the TANF unit, client education (in years), and several variables measuring local economic and labor market conditions (county poverty rate, county population, and three characteristics of the county's retail-trade sector—average annual earnings per employee, the number of firms, and the average number of employees per firm).⁵ We conducted separate analyses for whites, blacks, and Latinas, and for each racial group we conducted the analysis separately by education level (less than high school, high school, or greater). Separating the sample into these subgroups not only allows us to estimate how the relationship between sanctions and earnings growth varies across race and education level but also creates even greater homogeneity within each sample.

PSM only allows us to reduce, but not to eliminate, the bias generated by unobservable confounding factors. Bias is eliminated only when exposure to treatment is purely random among individuals who have the same value for the propensity score. This is known as the “conditional independence assumption.” The extent to which this assumption is met depends on the quality of the control variables used to construct the propensity score. Research on the earnings effects of government-sponsored training programs finds that this assumption is more likely to be met when outcome variables are measured in the same way for both participants and nonparticipants, members of the treatment and comparison groups are drawn from the same local labor markets, and the data include variables measuring an individual's labor force status prior to enrollment (Heckman, LaLonde, and Smith 1999). Our data generally meet these conditions. In particular, an important strength of our analysis is our ability to control for four quarters of pre-TANF earnings. Although we are unable to match sanctioned and nonsanc-

5. We use data from the retail sector as a proxy for the low-wage labor market more generally. Although the low-income population is not exclusively employed in this sector, it is much larger than any other sector that would be a suitable alternative (e.g., accommodation and food services).

tioned clients from the same local labor markets, our propensity-score models include control variables that measure several important characteristics of the local economy.

The results of the probit models used to generate the propensity scores are presented in tables 2 and 3. Table 2 presents results of analyses comparing once-sanctioned clients to nonsanctioned clients, while table 3 presents the results comparing multis sanctioned clients to nonsanctioned clients. For each client subgroup analysis, we began with a simple model specification that included no squared terms or interaction terms. If the propensity scores generated from the model did not satisfy the balancing property, which ensures similarity in the mean of all selection variables across treated and untreated clients, then we added squared and interactive terms to the model in an iterative fashion until the balancing property was satisfied. Ultimately, we were able to satisfy the balancing property for each of the 12 models presented in tables 2 and 3.⁶

Table 4 presents our estimates of the sanction effect based on our PSM estimator for each of the 12 client subgroups defined by race/ethnicity, education level, and treatment group status (never sanctioned, once sanctioned, or multis sanctioned). The results suggest that being sanctioned has a statistically significant negative effect on earnings for each of the 12 client groups. Variation in the magnitude of the estimates is presented graphically in figure 5. Each point represented in the figure reflects a PSM point estimate, along with a 95 percent confidence interval, for the effect of sanctioning. It is worth reiterating that the treatment and control groups are successfully matched based on pre-TANF earnings (for each of the four

6. In addition to the conditional independence assumption, successful implementation of PSM also requires satisfying the common support assumption, or what is also known as the overlap condition. Basically, this requires that we observe treatment and control subjects that are very similar on all characteristics, discarding observations outside the region of common support (where we are unable to estimate the ATT). If there are too few observations within the region of common support, then PSM analysis is compromised or even impossible. Consequently, an important step prior to PSM estimation is to check the region of common support between the treatment and comparison groups. The most common and straightforward test is a simple visual analysis of the density distribution of the propensity score in both groups. Appendix figures A1 and A2 present these graphs for each of the 12 client subgroups used in our analysis. As can be seen, the propensity-score distributions for sanctioned and nonsanctioned clients are indeed very similar, suggesting that the common support assumption should pose no problems for our analysis.

TABLE 2. Probit Estimates of the Determinants of Sanction Status (Nonsanctioned vs. Once-Sanctioned) of TANF Clients

Independent Variable	White (12 Yrs. or More)	Black (12 Yrs. or More)	Latina (12 Yrs. or More)	White (Less Than 12 Yrs.)	Black (Less Than 12 Yrs.)	Latina (Less Than 12 Yrs.)
Education (Yrs.)	-.036**	1.365	-.035**	-.026**	-.008*	-.013**
Education ² (Yrs.)	...	-.089	...	...	...	...
Education ³ (Yrs.)	...	.002*	...	...	...	...
Age	-.006*	-.013**	-.008	-.014**	-.018**	-.018**
Age ²	...	...	...	...	...	...
Earnings _{t-4}	-.012	-.019*	.034*	-.026*	-.037**	-.029
Earnings _{t-4} ²	...	...	...	...	...	...
Earnings _{t-3}	.011	-.048**	-.018	-.018	-.015	-.006
Earnings _{t-3} ²	...	.000**	...	...	...	...
Earnings _{t-2}	-.028*	.003	-.021	.011	-.007	.000
Earnings _{t-1}	-.001	-.066**	-.031	-.066**	-.040**	-.029
Earnings _{t-1} ²	...	.000	...	...	...	...
Earnings _{t-1} ³	...	.000	...	...	...	...
Age of youngest child	.024**	.059**	.009	.023**	.025**	.015*
Age of youngest child ²	...	-.002**	...	...	...	...
Number of children	.080	...	.001	.404**	.095	.328
Number of children ²	...	...	...	...	...	...
Poverty rate	.016*	-.001	.012	.010	.003	.011
Population	.003**	.004**	.001	.003	.003**	.002*
Average wage	.000	.000	.083*	.024**	.065**	.014
Employees per firm	.000	-.015**	-.017*	-.015**	-.026**	-.007
Number of firms	-.700**	-.597**	-.122	-.566**	-.350**	-.309**
N	6,495	7,548	3,274	5,744	6,812	3,573
χ^2	166.11**	237.74**	54.29**	202.37**	230.40**	86.85**

Note.—Yrs. = years. Cell entries are coefficients generated from probit analyses of the determinants of receiving a sanction. Earnings, TANF caseload, and county population are measured in 1,000s.

* $p < .05$.

** $p < .01$.

quarters preceding entry), years of education, client age, the number of children in the TANF unit, the age of the youngest child in the TANF unit, and measures of local labor market conditions.

As shown in figure 5, the estimated effect of sanctioning is uniformly negative, meaning that sanctioned clients experience statistically significantly lower earnings than never-sanctioned clients as much as a year after receiving the sanction. In addition, each of these effects is highly statistically significant; the upper bound of the 95 percent confidence interval lies far below zero for every effect reflected in the figure. The results also reveal an interesting pattern of effects across education levels and treatment group status. As expected, the estimated negative effect of sanctioning increases as we move from the sample of clients with less than a high school educa-

TABLE 3. Probit Estimates of the Determinants of Sanction Status (Nonsanctioned vs. Multisanctioned) of TANF Clients

Independent Variable	White (12 Yrs. or More)	Black (12 Yrs. or More)	Latina (12 Yrs. or More)	White (Less Than 12 Yrs.)	Black (Less Than 12 Yrs.)	Latina (Less Than 12 Yrs.)
Education (yrs.)	.010	-.023	-.012	.018*	.042**	.025**
Education ² (yrs.)	...	...	...	...	...	...
Education ³ (yrs.)	...	...	...	...	...	...
Age	-.016**	-.025**	-.017*	-.024**	-.040	-.023**
Age ²	...	...	...	...	.000	...
Earnings _{t-4}	-.004	-.003	-.013	-.031	-.112**	-.054*
Earnings _{t-4} ²	...	...	...	...	.000*	...
Earnings _{t-3}	-.006	-.012	-.009	-.033	-.041*	-.003
Earnings _{t-3} ²	...	...	.000	...	...	...
Earnings _{t-2}	-.026	-.040*	-.004	.006	.014	.033
Earnings _{t-1}	-.036	-.040*	-.073*	-.021	-.105**	-.089*
Earnings _{t-1} ²	...	...	...	...	...	...
Earnings _{t-1} ³	...	...	...	...	...	...
Age of youngest child	.031**	.028**	.014	.041**	1.028*	.016
Age of youngest child ²	...	...	...	...	...	...
Age of youngest child × education	...	...	...	...	-.002	...
Age of youngest child × number of children	...	...	...	...	-.993*	...
Number of children	-.068	-.275*	-.115	-.259	.435	-.196
Number of children ²	...	...	...	...	...	...
Poverty rate	-.008	-.029*	-.041	.015	.004	-.026
Population	.004**	.003**	.001	.005**	-.004	.002
Population ²	...	...	...	...	.000**	...
Average wage	.040*	.055*	-.084	.031	-1.088	-.001
Average wage ²	...	...	...	...	.000	...
Average wage ³	...	...	...	...	.000	...
Employees per firm	-.022*	-.029**	.006	-.030**	.000	-.014
Employees per firm ²	...	...	...	...	.000**	...
Number of firms	-.631**	-.402**	-.194	-.842**	.891**	-.257
Number of firms ²	...	...	...	...	.000**	...
N	4,617	5,658	2,536	3,393	4,774	2,446
χ ²	85.49**	176.40**	25.90*	119.41**	394.40**	51.62**

Note.—Yrs. = years. Cell entries are coefficient estimates generated from probit analyses of the determinants of receiving a sanction. Earnings, TANF caseload, and county population are measured in 1,000s.

* $p < .05$.

** $p < .01$.

tion to clients with 12 or more years of education. This pattern is reflected for both treatment groups (once sanctioned as well as multisanctioned). Finally, the estimated effect of sanctioning is considerably larger for clients in the multisanctioned group, compared to the once-sanctioned group. Based on these results, the largest effect is therefore experienced by multisanctioned clients with 12 or more years of education. The results suggest that on average, such clients earned approximately \$940 dollars less per

TABLE 4. Propensity-Score Matching Estimates of the Effect of Sanctioning on Earnings by Race, Education Level, and Sanctioning Frequency

Client/Yrs. of Schooling	PSM Estimate	Unconditional Difference- in-Difference	OLS Difference- in-Difference	N Treatment	N Control
Nonsanctioned vs. once sanctioned:					
White, less than 12 yrs.	−232.14**	−31.00	−251.50**	2,797	2,942
White, 12 yrs. or more	−527.63**	−473.71**	−565.89**	2,314	4,180
Black, less than 12 yrs.	−275.94**	−22.93	−299.76**	2,927	3,885
Black, 12 yrs. or more	−481.85**	−194.25*	−560.27**	2,558	4,986
Latina, less than 12 yrs.	−282.75**	−39.87	−292.67**	1,365	2,200
Latina, 12 yrs. or more	−509.92**	−462.87**	−448.97**	933	2,326
Nonsanctioned vs. multisanctioned:					
White, less than 12 yrs.	−507.10**	−315.44**	−598.11**	447	2,892
White, 12 yrs. or more	−955.66**	−868.19**	−1,093.75**	436	4,168
Black, less than 12 yrs.	−783.42**	−401.98**	−825.03**	889	3,796
Black, 12 yrs. or more	−973.66**	−750.76**	−1,170.31**	668	4,952
Latina, less than 12 yrs.	−719.53**	−496.42**	−909.29**	238	2,119
Latina, 12 yrs. or more	−889.41**	−794.39**	−1,055.59**	195	2,308

Note.—The propensity-score matching (PSM) analysis was conducted using kernel density matching in Stata 12.0 (attk command), with the bootstrap and common support options. OLS = ordinary least squares.

* $p < .05$.

** $p < .01$.

quarter than otherwise similar clients whose benefits were not sanctioned. Our results generally do not vary substantially across racial/ethnic groups. The one exception to this generalization occurs within the sample of white clients: the effect of receiving more than one sanction is somewhat less among white clients than it is among black and Latina clients.

In table 4 we also present estimates of the sanction effects generated by a simple difference-in-difference analysis that does not control for any preexisting differences between client groups and OLS estimates that include the same control variables as the PSM analysis. The unconditional difference-in-difference estimates generally underestimate the magnitude of the sanction effect (compared to our PSM results). These results are especially misleading for once-sanctioned clients with less than 12 years of education, as they indicate that sanctioning did not have statistically significant effects for any of the three racial subgroups. In contrast, the OLS difference-in-difference estimates (with controls) consistently produce larger effects than our matching estimates. When estimating the effect of being sanctioned once, the OLS estimates are very similar to those produced by PSM; although OLS estimates are larger than those produced through

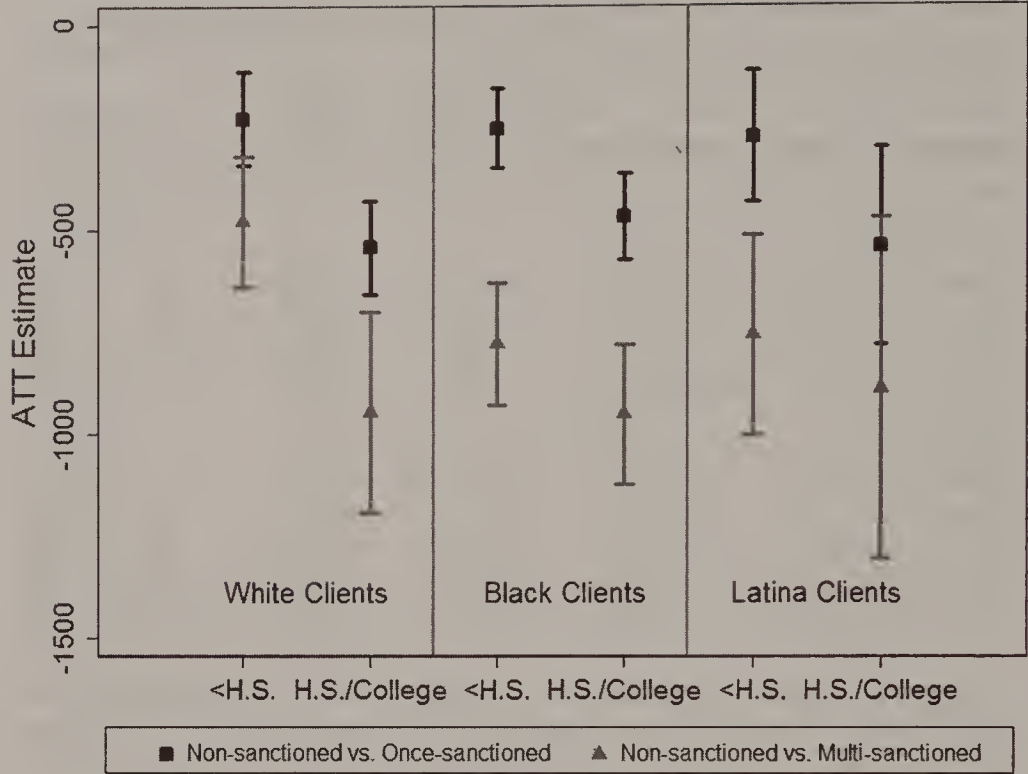


FIGURE 5. Propensity-score matching estimates of the effect of sanctioning on earnings, by race, education level, and sanction frequency. Note: each point plotted in the graph represents the difference in earnings growth (fourth quarter post-exit–fourth quarter pre-entry) between the sanctioned group and the nonsanctioned group, based on the propensity-score matching analysis reported in table 3. The bands surrounding each point estimate represent a 95 percent confidence interval. The samples for these graphs include all unmarried female clients under age 50 with at least one child under age 19 who entered and exited TANF for the first time during the 21-month period between January 2001 and September 2002.

PSM estimates, the differences are not large. However, the difference in OLS and PSM estimates for the multisanctioned analyses are much larger; OLS estimates exceed PSM estimates by an average of 17 percent.

ROBUSTNESS TESTS

The results in table 4 provide strong evidence of the negative effects that sanctions have on earnings, yet our confidence in these results would be enhanced if the results hold across alternative models that reflect different choices regarding sample selection and model specification. We report the results from three such robustness checks below. First, we address the possibility of endogeneity bias caused by the exclusion of a relatively small

percentage of long-term TANF clients. The results in table 4 are based on a sample of clients who entered and exited (either willingly or by sanction) their first TANF spell during the 21-month period between January 2001 and September 2002. Our rationale for this decision was to maximize our sample size, as the last quarter for which we have wage data is September 2003, and we wish to examine wages 1 year after exiting the first TANF spell. However, by defining the sample in this way, we were forced to exclude clients who entered TANF between January 2001 and September 2002 but did not complete their first spell by September 2002. This decision resulted in the exclusion of 19 percent of all clients who entered TANF during the January 2001–September 2002 time period. Therefore, while drawing the sample this way increases its size, it also risks overrepresentation of short-term recipients, making it possible that this biased our results if these long-term recipients differ from our estimation sample of clients in some unobservable way.

To correct for this possibility, we replicated all 12 models of client wage growth by restricting the sample to clients who entered TANF for their first spell no later than the end of the 2001 calendar year but still exited their first spell by the end of the third quarter (September) of 2002. Although this constraint results in a reduction in sample size by approximately one-third, we can be assured that the results are not affected by the overrepresentation of short-term clients, since our rate of excluding clients falls to a mere 2 percent (compared to the 19 percent exclusion rate for the original sample).⁷

The PSM estimates of the effect of sanctioning for this modified sample are presented in column 3 of table 5. Compared to the results for the full sample (see col. 1 of table 5), the estimates based on the modified sample are remarkably similar. The two sets of estimates differ by 10 percent or less in every case, and perhaps more importantly, the estimates based on the modified sample are just as likely to be larger than the original estimates as they are to be smaller. To some degree, the similarity of the results is likely due to the fact that our dependent variable is measured as the change in earnings (rather than the earnings level). But this result also suggests that the variables used to match clients (especially pre-TANF earnings) are effective in controlling for relevant client differences that we cannot directly observe.

7. We define a spell as months of consecutive TANF participation. The mean spell length in our data is 3.26 months.

TABLE 5. Alternative Propensity-Score Matching Estimates of the Effect of Sanctioning on Earnings, by Race, Education Level, and Sanctioning Frequency

Client/Yrs. of Schooling	Full Sample (Table 4)	Entered TANF 1/2001–12/2001		N		Clients with No Earnings Excluded		N		Control for TANF Participation		N		N		Control	
		Treatment	Control	Treatment	Control	Treatment	Control	Treatment	Control	Treatment	Control	Treatment	Control	Treatment	Control		
Once-sanctioned vs. nonsanctioned:																	
White, less than 12 yrs.	–232.14**	–223.52**	1,988	2,097	–225.08**	1,702	2,049	–235.29**	2,798								
White, 12 yrs. or more	–527.72**	–563.10**	1,484	2,828	–614.10**	1,602	3,141	–529.94**	2,314								
Black, less than 12 yrs.	–275.94**	–250.49**	2,111	2,819	–250.45**	2,090	3,144	–271.03**	2,927								
Black, 12 yrs. or more	–482.95**	–468.64**	1,728	3,380	–508.06**	2,031	4,309	–469.35**	2,558								
Latina, less than 12 yrs.	–282.75**	–251.07**	1,009	1,613	–335.24**	819	1,436	–272.59**	1,365								
Latina, 12 yrs. or more	–509.92**	–465.66**	635	1,598	–611.45**	624	1,670	–487.20**	933								
Multisanctioned vs. nonsanctioned:																	
White, less than 12 yrs.	–507.10**	–541.61**	301	2,064	–711.70**	280	2,031	–342.76**	447								
White, 12 yrs. or more	–955.66**	–922.75**	283	2,826	–1,302.13**	295	3,105	–701.26**	436								
Black, less than 12 yrs.	–783.42**	–842.22**	610	2,724	–1,031.04**	609	2,898	–563.64**	889								
Black, 12 yrs. or more	–973.66**	–1,001.00**	445	3,356	–1,197.47**	522	4,258	–752.47**	668								
Latina, less than 12 yrs.	–719.53**	–835.55**	169	1,569	–1,079.79**	130	1,402	–584.88**	238								
Latina, 12 yrs. or more	–889.41**	–828.86**	140	1,557	–1,259.66**	117	1,622	–556.88**	195								

As a second robustness check, we replicated our PSM analyses after dropping all clients with earnings of zero in both the pre-TANF and post-exit quarters. Such clients comprise approximately one quarter of our original estimation sample, and therefore their inclusion may bias our estimates of the sanction effect.⁸ These results are reported in the sixth column of results in table 5. After dropping these clients from our sample, our PSM estimates are uniformly greater in magnitude for all but two client subgroups—both whites and blacks with less than a high school degree. The biggest difference in the effect is seen for the multis sanctioned groups, where the sanction effect is found to be approximately \$170–\$400 larger in every case than the estimates from the sample that included clients with no earnings. Along with the results from the first set of robustness tests, these results provide greater confidence that our original estimates do not overstate the effect of sanctions.

Our final robustness test adds an additional conditioning variable to the analysis by controlling for TANF participation during the fourth quarter after exit (i.e., the post-exit quarter during which we observe wages). As noted earlier, the primary sample is not limited to clients who remained off the TANF rolls; clients may be on or off TANF in our data at any point during the post-exit period. We do not control for TANF participation during the fourth quarter in our initial analyses because we believe that this is one possible mechanism through which sanctioning might affect wage growth. That is, the disruption in clients' lives (such as in child care or transportation) caused by sanctioning may in turn lead sanctioned clients to rely more heavily on TANF for support than nonsanctioned clients. This seems especially plausible for frequently sanctioned clients. By comparing our original estimates to estimates that rely on models that match clients based on TANF participation during the fourth quarter (in addition to the other observed variables listed in tables 2 and 3), we can examine this possibility directly. These results are presented in column 9 of table 5.

Among once-sanctioned clients, the first-stage propensity-score models that include TANF participation (not shown) find that clients in the once-sanctioned group are generally no more likely to be on TANF than clients in the nonsanctioned group during the fourth post-exit quarter. Unsurpris-

8. As our earnings data are based on UI records, the data do not reflect unreported earnings from the informal economy.

ingly, the PSM estimates of the sanction effect for once-sanctioned clients are nearly identical to our original estimates. The exception to this pattern is Latina clients with less than a high school education. Once-sanctioned clients in this subgroup are somewhat more likely to be on TANF during the first quarter, and the PSM estimate of the sanction effect is about 5 percent (\$23) lower compared to our original estimate. Thus, we conclude that for the once-sanctioned group, the sanction effect cannot be attributed to greater rates of TANF participation among the sanctioned group.

The results for the multis sanctioned group lead us to a very different conclusion. The first-stage propensity-score models find that across all of the client subgroups, multis sanctioned clients are statistically significantly more likely to participate in TANF during the fourth post-exit quarter. And in contrast to the results for once-sanctioned clients, the estimated sanction effects for multis sanctioned clients are consistently lower for all client subgroups after controlling for TANF participation. On average, the estimated sanction effect decreased by 28 percent (\$221) compared to our original estimates. The difference is smallest for Latina clients with more than 12 years of education (18 percent, \$135), while the largest difference is seen for Latina clients with less than a high school degree (37 percent, \$333). These results suggest that one possible mechanism through which sanctions affect wage growth is through greater reliance on TANF among frequently sanctioned clients. However, even after controlling for TANF participation, the estimates of the sanction effect are much larger for the multis sanctioned group. Compared to once-sanctioned clients, the average effect of sanctions (across client subgroups) is approximately \$200 (63 percent) greater for multis sanctioned clients. The effect of being sanctioned more than once is most pronounced for black and Latina clients with a high school degree or more. For these subgroups, the estimated sanction effect for multis sanctioned clients is more than twice as large as the effects estimated for once-sanctioned clients. While greater reliance on TANF may explain some of the sanction effect, clearly a large portion of the effect occurs through other mechanisms.

CONCLUSION

Although there is a large literature on TANF sanctions, there is relatively little research on the effects of sanctions on client outcomes and even less

research that uses appropriate controls for preexisting client differences (Meyers et al. 2006). In this article, we seek to contribute to this literature by estimating the effect of sanctions on one of the most relevant and important outcomes of the TANF program—the earnings of TANF clients. We estimate a consistently negative effect of sanctioning on client earnings, and the effect is both statistically and substantively significant. The effect of sanctioning is generally much greater for clients who receive more than one sanction, but even clients who are only sanctioned once seem to have difficulty recovering as much as a year after receiving the sanction. Perhaps most unexpectedly, the effect of sanctioning is somewhat larger among those with relatively higher levels of education. This is an important finding, as these clients are more likely to have better job opportunities than other clients and are otherwise more likely to successfully use welfare to reenter the labor market and escape poverty (Vartanian and McNamara 2004).

We also compare our matching estimates to difference-in-difference estimates generated by OLS regression (with controls) and simple difference-in-difference estimates that do not control for differences between sanctioned and nonsanctioned clients. Our unconditional estimates generally underestimate the magnitude of the sanction effect (compared to our matching results) and in some cases show no statistically significant effect at all. In contrast, the OLS difference-in-difference estimates (with controls) consistently produce larger effects than our matching estimates, although the magnitude of the difference is relatively small. These comparisons demonstrate the importance of selection bias in the estimation of sanction effects. Perhaps the most surprising finding is that the failure to control for client characteristics serves to underestimate the sanction effect. Comparisons with OLS are more favorable and build confidence in the conclusions drawn by prior studies that control for past client conditions.

Although propensity-score matching is judged to provide accurate estimates of causal effects in evaluations of job-training programs (Heckman et al. 1997, 1998; Heckman, Ichimura, Smith et al. 1998; Smith and Todd 2005; Mueser et al. 2007), we recognize that the treatment we observe in this study (i.e., sanctioning) as well as the population of interest (i.e., TANF clients) are unique in important ways and that we are not able to explicitly control for some variables that previous studies find to be important predictors of both sanctioning and earnings. This includes such variables as

domestic violence, mental health, substance use, and employment stability, among others. Yet, for at least two reasons we believe that our research design might minimize the potential bias caused by the exclusion of these variables. First, while it is certainly likely that sanctioned clients are more likely to experience poor health, domestic violence, and the loss of child care or transportation, to the extent that these experiences are represented in clients' earnings we are able to control for these potentially confounding variables by matching sanctioned and nonsanctioned clients on four quarters of pre-TANF earnings. Second, and perhaps most important, our results hold up under different definitions of the estimation sample. Indeed, the estimated sanction effects actually increase in magnitude when we exclude clients who reported no earnings throughout the entire period of analysis. The results also hold up when controlling for TANF participation during the post-exit period.⁹

Although our data come from the early 2000s, there is no reason to think that the negative effects of sanctioning have diminished. Indeed, in the aftermath of the economic downturn and the changes to federal policy during the 2005 reauthorization of TANF, it is likely that sanctioning may have even stronger effects today. As some critics argue, these changes provide even greater incentives for states to use sanctions to push clients into countable work activities or off the rolls completely. While it is unclear if such incentives are actually operating as claimed, sanction rates have increased since 2005, leading many advocacy groups to call for reform of sanctioning policies (Casey 2010). At the very least, given the persistently grim job market for low-income workers in the wake of the Great Recession, more research is needed on the connections among the eroding safety net, TANF policy, and the well-being of the poor. For now, we can only conclude that welfare sanctioning is a policy that perpetuates poverty rather helps overcome it.

9. One possible alternative explanation for our findings is that the presence of a sanction policy serves to motivate, and thus increase the earnings of clients who are not sanctioned. We find this explanation to be implausible given the relatively flat earnings of nonsanctioned clients across our observation period (see fig. 2). Yet, to provide a stronger test of this possibility, we conducted an analysis of the effect of local sanctioning stringency (measured as the county sanction rate) on the earnings growth of nonsanctioned clients. Despite substantial variation in local sanctioning stringency in Florida, the analyses find no relationship between the degree of stringency and earnings growth. We report this analysis in a supplemental appendix that is available upon request.

APPENDIX

DISTRIBUTION OF PROPENSITY SCORES BY RACE, EDUCATION,
AND SANCTION STATUS

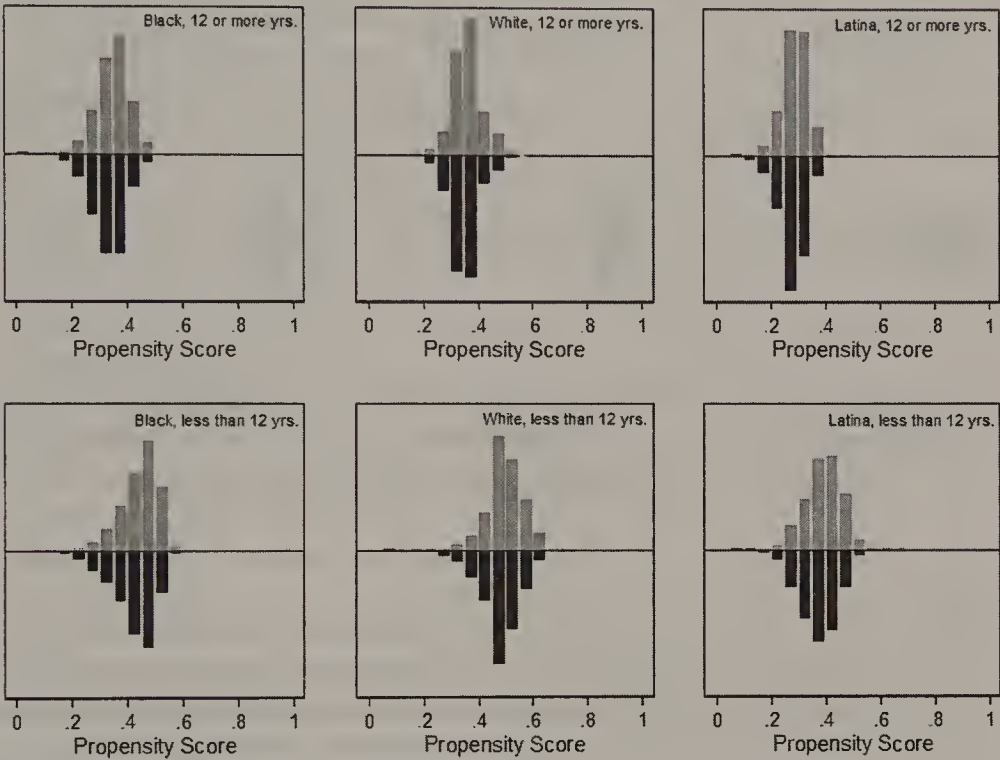


FIGURE A1. Once sanctioned (gray) vs. never sanctioned (black)

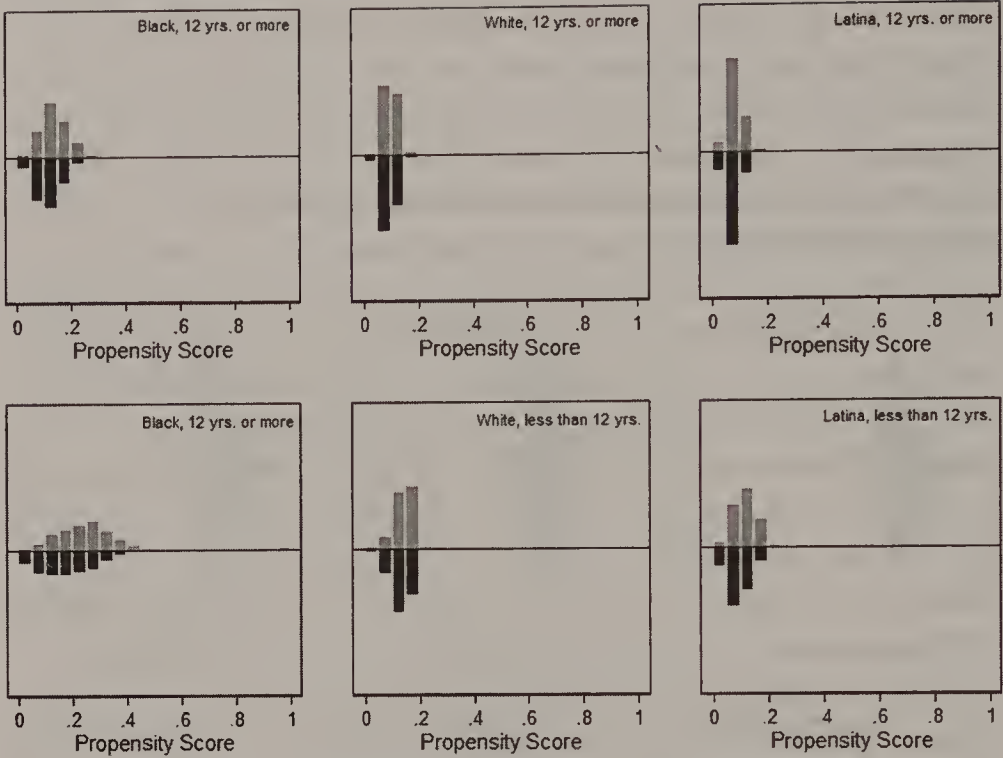


FIGURE A2. Multis sanctioned (gray) vs. never sanctioned (black)

NOTE

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The Community Loss Index: A New Social Indicator

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ABSTRACT The Community Loss Index (CLI), a new social indicator, focuses on the understudied role of place as a source of stress and an aggregator of individual experiences. Building on the relationship between loss and stress, the index attempts to capture *collective loss*, defined as the chronic exposure by neighborhood residents to multiple resource losses at the same time. Using maps, the article analyzes the spatial distribution of six types of loss in New York City and the characteristics of people who live in high- and low-loss neighborhoods. Regionalization reveals a neighborhood-based concentration of loss, patterns of loss that are both widespread and variable by location, and that a group's vulnerability to the adverse effects of community loss depends on where the group lives. The CLI provides a place-based context for investigating neighborhood-based collective loss and allows community members and public officials to fine-tune interventions based on actual community needs.

INTRODUCTION

In recent years, researchers studying urban areas have recognized that place matters: differences in neighborhood conditions powerfully predict the well-being of local residents (Joint Center for Political and Economic Studies 2012). Interest in the many dimensions of place is growing due to mounting demand for accountability, outcome measures, evidence-based research, and indicators that reveal what works. In response, researchers like Jochen Albrecht and Laxmi Ramasubramanian (2004) have developed measures that aim to help communities and policy makers study, understand, and change local conditions.

The Community Loss Index (CLI) presented here examines how stress might be a useful concept not only for individuals but for communities as

well by capturing the relationship between adverse neighborhood conditions and the concentration of health and social problems in some neighborhoods. It is well established that the stress resulting from exposure to severe loss can create health and social problems for individuals and that health and social problems tend to cluster in poor neighborhoods.¹ However, little is known about what happens to communities when large numbers of people living in close proximity regularly suffer multiple, persistent losses or why health and social problems (behaviors that harm oneself or others) tend to amass in certain areas. Some observers blame the concentration of health and social problems in poor neighborhoods on the behavior of local residents (Murray 1984). Others point to poverty but often cannot explain what about poverty leads people to harm themselves or others. Seeking a fuller understanding, scholars are calling for research that specifies the pathways between neighborhood conditions and spatial concentrations of health and social problems (Feldman and Steptoe 2004; O'Campo, Salmon, and Burke 2008).

Drawing on Stevan E. Hobfoll's (1989) theory of the relationship between resource loss and individual stress and the literature describing how stress affects the mind and body (van de Kolk 1996), this article develops community loss as a potential place-based stressor that, like other stressors, can adversely affect the social fabric on which community functioning depends. We define community loss, based on Hobfoll's Conservation of Resources theory (COR) and prior empirical work that links loss to stress and then describe our construction of the CLI. A geographic information system (GIS) is used to map the spatial distribution of loss in New York City at three increasingly discrete geographic levels and to assess how community loss is distributed among communities that vary in terms of demographic composition. The CLI contributes to the knowledge of poverty and place. It identifies aggregated resource loss as a problematic feature of neighborhood life; recognizes resource loss as a potential community-wide stressor; provides a way to map and analyze aggregated loss at the citywide, neighborhood, and community levels; and adds the notion of community loss to the understanding of the experience of poverty.

1. Neighborhoods, as per our definition, are areas of like high, medium, or low loss. Neighborhoods are designated as follows: if a high-loss ZIP code area abuts a medium- or low-loss one, then this border forms the border of the neighborhood.

BACKGROUND: COMMUNITY, LOSS, AND STRESS

Joseph R. Gusfield (1975) distinguishes between two major, but not mutually exclusive, uses of the term *community*. The first is territorial and geographic, defining a community, for instance, as a particular neighborhood, town, or city. The second is relational, concerned with the quality or character of human relationships, without reference to location (xvi). Using both geographic and relational aspects, the *Oxford Dictionary of Geography* defines community as “an interacting group of people living in the same territory: town, village, suburb, or neighborhood” (Mayhew 2010, 92). Drawing on this definition, this article examines the geographic distribution of community loss based on the understanding that the associated stress affects the quality of life, rendering both territorial and psychological versions of the neighborhood relevant to this research (Bateman and Lyon 2000).

The concept of community loss developed here builds on research that finds evidence for a strong relationship between an individual's exposure to loss and the development of health and social problems. Indeed, the death of a loved one (Campbell 1983; Boss 1999; Green 2000), major disasters (Erikson 1976; Ursano, Grieger, and McCarroll 1996; Norris 2002), historic trauma (Sotero 2006; Evans-Campbell 2008), and other such losses yield severe stress among individuals. The literature also argues that the ensuing reactions to stress (e.g., fear, anxiety, helplessness, and vulnerability) can heighten individuals' perceptions of risk (Green 2000), shatter their basic assumptions about safety and protection, and undermine their sense of trust and place (Ursano et al. 1996; van der Kolk et al. 1996; Nord 1997; Norris 2002). Because these reactions can disrupt an individual's daily routines, capacity to cope, personal relationships, and access to community resources, they often lead to a range of health and social problems. Pauline Boss's (1999) concept of ambiguous loss adds another dimension to the discussion. Boss analyzes how families and communities react when loved ones are known to be alive but are absent because they are in combat, in prison, deployed, deported, or otherwise not present. Not knowing if the missing person will ever come back or return to the way he or she had been produces what Boss terms *ambient stress*, a chronic condition in which torn-apart families become immobilized, hoping for the best yet fearing the worst.

These studies focus on the nuanced relationship between loss and stress among individuals with the goal of helping them cope. However,

they do not capture other types of individual loss experienced in many cities or towns, which can include homicide, unemployment, foreclosure, eviction, deportation, deployment, long-term hospitalization, incarceration, foster care placement, school closings, and transportation shutdowns. Nor does the research on individuals account for what happens to a community when a large number of residents living in proximity are chronically exposed to high rates of one or more of these types of loss at the same time. The literature (detailed below) suggests that when concentrated by place, the problems associated with loss-induced stress can have an adverse effect on the wider community. That is, amassed loss and stress, captured by the CLI, have the power to weaken neighborhood ties, diminish the size of social networks, limit the community's social capital and efficacy (Sampson and Raudenbush 1999; Sampson 2004), and otherwise impair community functioning (van de Kolk 1996; Bassuck, Melnick, and Browne 1998; Briere and Runtz 2002; Galea 2006). Although this may be mitigated somewhat by social supports and community strengths, this article discusses how collective or aggregated experience of community loss may place communities at a high risk of stress.

THEORY: LOSS OF RESOURCES AS A SOURCE OF STRESS

The Community Loss Index draws on the well-documented understanding of the relationship between loss and stress, especially on Hobfoll's (1989) COR theory, which defines resource loss as the principal contributor to individual stress, especially in low-income communities. More specifically, the theory asserts that humans seek to obtain, retain, and protect resources and that they act to minimize loss and maximize resource gain. Stress results when resources are threatened or actually lost due to life events or when an investment of resources does not lead to resource gain.

COR differs from other theories of stress in ways that make it especially useful for a study of community loss. Most observers regard the stress process either as an internal mental occurrence or as an external environmental phenomenon (Hobfoll 2001). Hobfoll accepts both perspectives but regards context, or the external aspects of the stress processes, as central, objective, and culturally constructed. He views "individual-nested in family-nested in tribe" (338) and defines "tribe" as "the complex set of social aggregations of people into groups," including "friends, col-

leagues, organizations, and communities” (339), or what others think of as social networks. Hobfoll warns that “attempts to separate any piece of this unit (individual, family, tribe) without reference to the greater whole will necessarily lead to limited predictive capacity” (338). He further regards stress as primarily socially situated and involving social consequences. Hobfoll (2001) operationalizes context by focusing on objective and observable resources, measuring stress based on actual or threatened resource loss rather than subjective personal perceptions. He defines the resources deemed key to survival and well-being based on surveys of community members regarding their view of the central resources and argues that community opinions of what resources are important often vary based on culturally defined processes, scripts, and formulations. COR theory successfully predicts a range of stress outcomes in organizational settings and health contexts following traumatic stress as well as in the face of everyday stressors (Hobfoll and Lilly 1993; Hobfoll et al. 2003).

COR theory is especially relevant to the experience of poor people and communities. Nearly everyone reacts to resource loss. However, the poor and disenfranchised, who are already financially strained, are especially vulnerable to the loss of resources and to what Hobfoll (1989, 1991, 2001; Hobfoll et al. 2003) refers to as a downward loss spiral. The latter develops when people with few resources use them up coping with stress or preventing the loss of other resources. The resulting depletion of their reserves increases stress levels. This, in turn, can yield emotional and physical problems that may impair adaptive coping capacities in ways that undermine effective functioning in families, schools, jobs, and communities. Once the cycle of dwindling resources and rising stress gains momentum, it can reinforce a catastrophic downward spiral, from which it is difficult to recover. Given the interdependence of neighborhood residents and given that neighbors often suffer the loss of community resources at the same time, the downward spiral can ripple through the community and undermine its functioning as well as that of individuals (Hobfoll and Lilly 1993).

THE COMMUNITY LOSS INDEX

We develop the CLI as a means of operationalizing the new concept of community loss. The six losses selected for inclusion in the CLI are based on Hobfoll’s definition of resource loss, their demonstrated relationship to

stress, and the availability of data. Hobfoll (1989, 2001) finds that certain losses consistently show up as items most frequently cited by community members on lists of stressful life events. Based on numerous surveys, he lists 74 resources that are viewed by respondents as essential for well-being and survival in Western societies. They include material possessions (house, food, car), conditions (job security, adequate income, time), personal characteristics (health, mastery, sense of control, social skills, connections to others), and energies (money, knowledge, favors owed; Hobfoll 1989, 1991; Green 2000).

The losses considered for incorporation into the CLI include the loss of essential resources, such as loss of income, health, housing, and job security, among others. Specifically, we considered unemployment, untimely death of a loved one, incarceration, foster care placement, long-term hospitalization, deportation, deployment, eviction, and foreclosure, because they all appear at the high end of the stress spectrum. They are unpredictable and uncontrollable—two characteristics known to aggravate or intensify stress because they can leave people with too little time to prepare and with feelings of helplessness and lack of control (Dohrenwend 1998). The resulting stress can undermine an individual's capacity for adaptive coping and lead to the development of emotional and physical problems that, in turn, interfere with effective functioning in families, schools, jobs, and community life.

Because of data limitations, the CLI used in this article uses only six of the above nine losses considered for inclusion. Those selected fall into two categories: the loss or removal of household members due to foster care placement, incarceration, long-term hospitalization, and untimely deaths (due to murders, suicides, and accidents) and the loss of financial assets due to unemployment and foreclosure. After an in-depth search of US Census data, New York City administrative data, various websites, and queries to other researchers, it became apparent to us that data for deportation and eviction were not available at the requisite neighborhood unit. Other losses, such as marital breakup or a child's departure to attend college, are not included because, unlike the items on the CLI, they are not unpredictable or uncontrollable but rather are often a matter of choice. The authors include military deployments in this same category because there is no draft in the United States. Furthermore, mapping of deployment origins revealed no spatial or social pattern within New York City.

The CLI is founded on the interactive nature of communities, where residents who live in close proximity to each other are by definition both directly and indirectly interconnected. As the following literature review shows, when many people living close to each other regularly experience the stigma, isolation, and demoralization that result from the losses examined in this study, the collective experience can keep people from interacting with each other in ways that negatively affect the social fabric of the wider community (Fullilove 2001; Fullilove, Fullilove, and Wallace 2007). The loss of household members, resources, and institutional anchors experienced by one household may also deprive that household of access to the resources embedded in that person's social networks, including family members, relatives, friends, coworkers, and other members of the community. In brief, the tangible effects of loss and the resulting stress can spread from households that have been directly affected by the loss to others, including those living nearby and those in surrounding communities. As noted earlier, the negative effect and downward spiral of resource loss can ripple throughout the entire community in ways that undermine community function and its sense of efficacy or effectiveness. (Fullilove et al. 1998; Fullilove 2001, 2002, 2004).

Fullilove and colleagues (2004) suggest that the losses such as those examined in this study are akin to ongoing societal displacement, or the loss of all or part of one's emotional ecosystem. They describe reactions to such ongoing displacement as "Root Shock" and compare it to traumatic stress, physical shock of a massive bleed, or the emotional upheaval that follows the sudden loss of livelihood and property during a natural disaster.

A group's vulnerability to such adverse effects of community loss clearly depends on where they live. However, given the concentration of persons of color in certain neighborhoods, some observers associate any problems in those neighborhoods with the race of the residents. In contrast, Mary Patillo (2005) and Judith Bell and Mary M. Lee (2011) find that persons of color and white people who live in poor neighborhoods have similar adverse outcomes, while persons of color and whites residing in middle- or upper-income neighborhoods have similar favorable outcomes. That is, when income is held constant, place trumps race. Race (defined as racism rather than skin color) also matters. Due to persistent racial segregation, middle-class blacks are more likely than middle-class whites to live in poor neighborhoods that tend to be both worse off than white

neighborhoods and adjacent to areas of concentrated poverty (Patillo 2005; Bell and Lee 2011; LaVeist, Gaskin, and Trujillo 2011). Living near poor neighbors places middle- and high-income persons at risk for suffering the hardships that characterize less well-off areas (Diez Roux 2001; Bishaw 2005; LaVeist et al. 2011).

LITERATURE REVIEW: SIX COMMUNITY LOSS INDICATORS

The following literature review discusses each of the six resource losses, with an emphasis on their potential contribution to community stress. It suggests that the experience of persistent and simultaneous loss of household members and economic assets by many people living in proximity to each other has the potential to create a community version of Hobfoll's downward loss spiral, especially in low-income communities with already low resource reserves.

UNEMPLOYMENT: THE LOSS OF WORK

In the modern economy, job loss is pervasive, and this is exacerbated by frequent economic crises. Although the US recession officially ended in June 2009, the country's unemployment rate measured 7.9 percent in January 2013, with even higher figures for New York State (8.2 percent) and New York City (8.8 percent; New York State Department of Labor 2013). However, unemployment remained extremely high for persons of color: 6.5 percent of Asian workers, 7.0 percent of white workers, 9.7 percent of Latino workers, and 13.8 percent of black workers were jobless nationwide (US Bureau of Labor Statistics 2013).

Loss of Personal Resources

Unemployed workers, especially those who are jobless in the long term, are twice as likely as their employed counterparts to suffer loss of personal resources, including the loss of skills, steady income, a structured work routine, and opportunities to participate in social activities with coworkers and neighbors (Paul and Moser 2009). Employed workers, who have the opportunity to contribute actively to the vitality of their communities by paying taxes and providing services, are also less likely to turn to street crime or to move away from the area in search of opportunities elsewhere (Crabtree 2011).

Rise of Social Problems

The stress, self-blame, feelings of stigma, and loss of self-esteem reported by the jobless often translate into larger health, mental health, family, and social problems (Price, Friedland, and Vinokur 1998; Dreier 2009; Lou 2010; Malar 2010; Sayer et al. 2010; American Psychological Association 2012). According to the Gallup-Healthways Well-Being poll, underemployed Americans rate their lives more poorly and suffer from more daily worry, sadness, stress, and anger than the employed, and they are considerably more likely to become depressed (Mendes and Marlar 2011). They are also more likely than the employed to suffer poor health, including higher rates of obesity and chronic illnesses that affect both their long-term health and community health-care costs (Harter and Agrawai 2011).

Loss of Community Economic Viability

The loss of jobs by community members can translate into a network event when its consequences spill over to others. In addition to increased coworker workload (Price et al. 1998), many family and community members have to make up for lost income and labor, which depletes community energy, resources, and innovation. High rates of unemployment in a community also create fiscal stress, as falling revenues make it difficult to sustain affordable housing, quality schools, employment programs, public transportation, and other services (Brisson, Roll, and East 2009; Dreier 2009). The ongoing decline of purchasing power and property values leads firms to close or flee, costing the community more jobs and furthering the downward loss and stress spiral.

Less Social Cohesion and Crisis of Legitimacy

Aggregated job loss can also undermine social cohesion. Unemployed workers are less likely than employed workers to feel that they belong to the neighborhood and to participate in civic activities (Steward et al. 2009). Their withdrawal from work, relationships, and local organizations (churches, recreational facilities, schools, etc.) deprives the community of important interactions, information, and energies. The legitimacy of the state is also at stake (American Psychological Association 2012). If and when community residents blame business and government for policies that lower wages and increase joblessness for some while increasing the wealth of others, the perception of favoritism can undercut trust in government as the incarnation of the popular will (Jacobs and King 2009). In

2010, the United Nations predicted that the inequality associated with extended global unemployment would engender a growing of sense of unfairness that could intensify social tensions and social unrest. Richard G. Wilkinson and Kate E. Pickett (2009) report a fundamental link between increasing inequality in advanced economies and greater physical, emotional, social, and political disorder.

FORECLOSURE AS COMMUNITY LOSS

For most people, housing is more than just a shelter: it provides comfort, privacy, a sense of security, and a home (Suglia, Duarte, and Sandel 2011). Yet more than 4 million homes have been lost to foreclosure during the past 5 years, although recent data report that the number of filings are falling (Christie 2012).

Personal Losses

The loss of a home to foreclosure sets off multiple other losses, including the loss of financial security, stable family relationships, and good health (Saegert, Fields, and Libman 2011). The loss of assets and a damaged credit rating can impede employment, the purchase of another home, insurance, and other services key to financial stability (Kingsley, Smith and Price 2009; Steward et al. 2009). Foreclosure also feeds marital tensions, exacerbates negative behaviors (child abuse, addictions, etc.), and increases debt, among other difficulties. These losses often trigger a range of health and mental health problems.

The Rise of Social Problems

Foreclosures also have far-reaching negative consequences for communities. Foreclosed families often double up with others or become homeless. Abandoned homes increase rates of crime (e.g., arson, murder) and vandalism and invite illicit activities such as gangs, drug dealing, and prostitution (Apgar and Duda 2005; Saegert et al. 2011). The rise of social problems fuels the community's downward spiral, as it damages the neighborhood's reputation, housing stock, sense of safety, and business climate. Potential buyers back away from declining neighborhoods, leaving more houses empty, while those invested in nearby homes and businesses stand to lose as foreclosures accelerate the decline of entire neighborhoods (Saegert et al. 2011).

Loss of Community Economic Viability

Susan Saegert and associates (2011) regard mortgage foreclosure as the loss of social, economic, and human capital in social, geographic, and economic spheres, and they argue that the loss in one sphere affects the others. Foreclosed properties create many economic difficulties for already disadvantaged communities. In addition to the deterioration of the housing stock and local living conditions, foreclosed buildings and declining housing markets drain city budgets. Falling property values reduce the revenues needed to sustain city services just when the cost of processing foreclosures and providing needed services to displaced families increases (Kingsley et al. 2009; Immergluck 2011). There is evidence, therefore, that repeated extraction of resources and the accumulation of loss over time negatively affect the well-being of individuals and groups within as well as across generations.

Social Cohesion and Crisis of Legitimacy

The foreclosure crisis also undermines the social cohesion of communities. Social networks lose the financial support of some of their most well-off members as well as the social support from neighbors forced to move (Saegert et al. 2011). Neighborhoods lose not only population but also capital circulation, physical and social amenities, reputations, public services, a sense of safety, and a sense of place. These losses risk isolating residents from the societal mainstream and can undermine trust in the basic societal institutions (Guzman, Bhatia, and Durazo 2005; Vidmar 2008; Saegert et al. 2011). In 2012, only 21 percent of Americans reported a great deal or quite a lot of confidence in banks, down from 41 percent in 2007 and 60 percent in 1979; in 2012, 35 percent had very little or no confidence (Jones 2012). And if Americans view banks as predatory institutions or elected officials as favoring Wall Street over Main Street, they may conclude that government policies help businesses more than foreclosed homeowners, challenging the legitimacy of the state as a representative democracy (Jacobs and King 2009; Immergluck 2011).

FOSTER CARE PLACEMENT

In 2011, almost 400,000 children lived in foster care in the United States, with 252,000 entering the system that year (Annie E. Casey Foundation n.d.). Meant to be a temporary solution, many children remain in care for

an average of 2 years, and the average foster child is moved at least once, with 25 percent moving three or more times (Doyle 2007). These patterns suggest that foster care placements represent a major family and community loss akin to displacement or, as per Fullilove (2001; 2004), the loss of all or part of one's emotional ecosystem.

Personal Losses

Child maltreatment and foster care placements disrupt child development and family life. The removal of children from their biological parents can leave a child with a deep sense of loss and abandonment, creating stress that can undermine children's physical and mental health (Roberts 2010).

Social Problems and Children Removal

Another study linking entry into foster care to neighborhood conditions rather than maltreatment finds that the risk of entry is concentrated and heightened in areas that suffer adverse conditions such as residential instability, impoverishment, and child care (Lery 2009). The author of that study finds evidence for this direct relationship between placement and disadvantage at all levels of neighborhood aggregation (e.g., census block, census tract, and ZIP code) and that the risk of placement increases for children living in or near the worst-off neighborhoods. When separation reduces the children's future interest in the community, the downward spiral ensures that community suffers still another loss (Roberts 2010).

Social Cohesion and Crisis of Legitimacy

Dorothy E. Roberts (2010) examines the community-wide effects of simultaneous removal of children from many different homes. The low-income women she interviewed saw the child welfare program as an important source of financial support and services, yet the spatial concentration of children in foster care also disrupted the community's social cohesion (Roberts 2005). Child welfare supervision engendered fear and distrust to the extent that it encouraged neighbors to gossip about families in the system, to handle grudges by threatening to report one another to the department, and to otherwise turn to destructive means for resolving neighborhood conflicts (Roberts 2010).

The removal of children from their homes also undercuts social cohesion by jeopardizing the community's human capacity (e.g., for devel-

oping future leaders), its ability to safeguard its language and culture, and the capacity of its members to envision the future (Evans-Campbell 2008). Roberts (2005) finds that the placement of large numbers of children in state custody—even when some are ultimately reunited with their families or placed in adoptive homes—interferes with community members’ ability to form healthy connections and to participate fully in the democratic process. Citing Linda C. McClain (2006), she suggests that intense regulation of foster care contradicts the vital role that families play in fostering citizen’s moral development free from state control. Roberts (2005) additionally observes that these adverse outcomes are especially problematic in neighborhoods with a high percentage of African Americans, given the well-established racial disproportionality in foster care. She suggests that “the spatial concentration of child welfare agency involvement in African American neighborhoods is what makes the child welfare system a distinctively different institution for white and black children in America” (31).

INCARCERATION

The US incarceration rate exceeds that of any other country in the world (International Centre for Prison Studies 2012). Nationally more than 60 percent of the prisoners belong to racial and ethnic minorities, a disparity that reflects well-known and often critiqued arrest, prosecution, and sentencing policies. As of January 1, 2011, more than 56,000 people lived in New York State prisons: 54,109 (96.1 percent) males and 2,206 (3.9 percent) females. More than 50 percent are African American, 24.9 percent are Latinos, and 22.4 percent are white. Nearly 90 percent of both the women and the men are between the ages of 21 and 59—the prime years for parenting, workforce advancement, and community engagement (New York State Department of Correction and Community Supervision 2012).

Personal Loss

Prisoners and their families experience a tremendous resource loss (Hairston 2001). Incarceration removes people from family, work, and community roles (Clear and Rose 1999); creates emotional and financial voids in households that others must fill; and disrupts individual func-

tioning, family solidarity, and overall community efficacy or effectiveness. Prisoners' children and families often experience shame and social stigma, leading some to try to hide the imprisonment from relatives and friends. These unacknowledged or hidden losses can complicate mourning and impede access to family and social supports (Walsh 2007). If the social stigma transfers from individuals to the family, its members may withdraw from the community, losing still more social support. The resulting social isolation can shift new burdens to a smaller number of already stressed family and community members. Public policy exacerbates the loss (Golembeski and Fullilove 2005; Raphael 2009), especially the distant location of prisons, limited options for prisoners to communicate with their families, the lack of reentry services for ex-offenders, and the exclusion of felony offenders from public housing and the voting booth (Sentencing Project 2006; Dallaire 2007).

Rise of Problems

Many communities fail to provide the services needed to reintegrate prisoners upon release from incarceration. When large numbers of former prisoners return to the same community but do not get hired or receive rehabilitative services, they are more likely to suffer substance abuse, violence, depression, and the lack of self-care (Iguchi et al. 2005; Williams 2007). The concentration of people experiencing high rates of distress can place members of the wider community at risk for a range of health and social problems. For example, children with an incarcerated parent often perform poorly in school and question parental authority, and they are more likely than other children to enter the child welfare or the criminal justice systems (Rose, Clear, and Ryder 2002). As with the spatial concentration of unemployment and foster care placement, residents not directly affected by incarceration may nonetheless face collateral consequences when it is experienced by the community-at-large (Rose and Clear 2004). The collective loss is especially large in predominantly black neighborhoods, where as many as 25 percent of young adult males are incarcerated at any given time (Clear and Rose 1999).

Loss of Economic Viability

By removing individuals from their neighborhoods, incarceration may improve the quality of community life if it involves only a few residents. However, in neighborhoods with many offenders, the removal can un-

dermine the community's viability. If the stigma that accompanies both the high rates of incarceration and the concentration of health and social problems becomes attached to the wider community, it may yield fear, lower property values, and damage to the area's reputation as a good place to live and to do business (Rose et al. 2002; Mauer 2004). The practice of locating prisons far away from the prisoner's original residence deprives the prisoner's hometown of jobs and revenue while increasing federal funding for prison communities. This transfer of resources occurs because the US Census counts prisoners as residents of the district in which the prison is located (Mauer 2004).

Social Cohesion

Incarceration also undermines social cohesion when it deprives prisoners and their communities of important political influences (Roberts 2004). Many states deny former prisoners the right to vote (Mauer 2004). Nationally such laws have cost an estimated 5.3 million Americans this basic right, including more than 60 percent of New York State inmates (New York State Department of Corrections and Community Supervision 2012). Given that people often go to the polls together and that voting engages family members in talk about elections, the disenfranchisement of former prisoners can reduce voter turnout among other eligible voters (Mauer 2004). Political participation may also fall should racial disparities in mass incarceration yield negative perceptions of police departments, the legal system, and the government. It is also affected when states redraw political boundaries so that prison-driven census counts boosts that area's political clout (*New York Times* 2010) while depriving the prisoner's home—typically an urban community—of a political voice. Policies that undermine political engagement leave many poor neighborhoods underrepresented (Mauer 2004; Williams 2007).

Incarceration in the wider community can also create a crisis of legitimacy to the extent that neighborhood residents believe that the government treats them unfairly. A 2012 Gallup poll (Jones 2012) of Americans' confidence in societal institutions found that only 29 percent have a great deal or quite a lot of confidence in the criminal justice system, compared to 75 percent for the military. The erosion of trust in the law's fairness reduces the community's willingness to comply with its authority, which in turn compromises public morale, spirit, and safety (Clear and Rose 1999). The lack of trust and cooperation places the police, the courts, and

social services at a disadvantage since they operate best with strong community support (Bobo and Thompson 2006).

LONG-TERM HOSPITALIZATION

There is little to no research on how the long-term hospitalization of many local residents might affect the wider community. However, it has been included here as a community loss indicator on the grounds that long-term hospitalization removes family members from the home and community. While hospitalization may be accompanied by sympathy rather than stigma from family and communities, the sympathy may diminish and the stigma may increase over time. As is the case with other losses, the absence of key household and community stakeholders can disrupt existing arrangements and lead to both increased burdens and a reorganization of roles.

Large variations in hospitalization rates have been documented in studies comparing rates of different nations, regions, states, communities, and neighborhoods (Billings et al. 1993). Most studies report higher hospitalization rates in low-income communities, especially among those under age 65. In one study of several US and Canadian cities, average admission rates in these areas were as much as 3.7 times greater than in higher-income areas. Individuals living in low-income ZIP codes had rates more than 20 times higher than those in some more affluent areas. In 1982, the low-income hospitalization rate was 2.8 times that of high-income neighborhoods; in 1993 it was 3.4 times higher. The 1980 hospitalization rate for black patients was 72 percent higher than the rate for white patients; in 1998, the black rate was 131 percent higher. The research suggests that the class and race disparities are related to serious access or systemic problems (Billings, Anderson, and Newman 1996), such as the lack of timely and effective outpatient care that may also be linked to age and insurance coverage (Billings et al. 1993).

UNTIMELY LOSS (DEATH)

Loss, disappointment, failure, and grief are normal and natural parts of the human experience. However, untimely loss, which typically occurs without any forewarning, can be especially problematic. Untimely loss includes

death from heart attacks, strokes, accidents, and sudden infant death syndrome but also suicide, homicide, loss of combat buddies, and natural disasters (Dyer 2003). Untimely death becomes more stressful if the loss does not make sense; is random, violent, stigmatized, mutilating, destructive, or preventable; involves multiple deaths; is a close call for the mourner; or is accompanied by concurrent crises and multiple secondary losses (e.g., loss of income, home, social status, or capacity to access other resources). When the resulting response to stress compounds other ongoing life stressors, it may disrupt and undercut both individual well-being and community functioning.

Some untimely deaths, such as homicide, suicide, and death due to gang violence, HIV/AIDs, premature child birth, and infant mortality poor health, are a daily occurrence in many low-income communities and often are socially determined. Sandro Galea and colleagues (2011) found that in the year 2000, approximately 245,000 deaths in the United States were traced to low education, 176,000 to racial segregation, 162,000 to low social support, 133,000 to individual-level poverty, 119,000 to income inequality, and 39,000 to area-level poverty. The authors report that mortality estimates are comparable to deaths from the leading pathophysiological and behavioral causes, such as acute myocardial, cerebrovascular disease, and lung cancers. High mortality rates have also been linked to discrimination and other negative social interactions known to produce stress, as well as to regular exposure to violence, to the harmful effects of the built environment, to social norms that promote adverse behaviors, and to decreased access to health and social services. Galea and colleagues' (2011) identification of a large number of deaths due to social factors, Joseph Garbarino's (1995; also see Garbarino 2000) description of low-income communities as war zones, and a record 500 shooting deaths in Chicago in 2012 (equivalent to one Newton, CT, massacre every 2 weeks; Thistlewaite 2013) suggest that losses suffered in many US communities amount to a major disaster (Walsh 2007). The instantaneous offering of memorial murals, photos, wreaths, and teddy bears on the day after an untimely death potentially suggest that the grief is shared throughout the wider community (Jorgensen-Earpa and Lanzilotti 1998; Doss 2008).

There is little spatial analysis of untimely loss. However, in 2011, the Health Care Agency in Orange County, California, produced a geographic health profile that included the distribution of infant mortality and deaths

from a variety of other causes. Although it revealed a distinct clustering of these deaths by ZIP code, the report did not discuss the demographic characteristics of each ZIP code (Orange County Health Care Agency 2011).

METHODOLOGY

We use a Geographic Information System (GIS) to investigate and document the geographic characteristics of Community Loss in New York City neighborhoods. The theoretical model underlying the development of the CLI shifts the focus of inquiry from individual behavior to geographic context, allowing for analyses seeking to understand the relationship between people and place. GIS technology integrates information about individuals and households with information about their neighborhoods. This requires spatial data, which can be tied to a particular location such as a postal address, a census tract, a ZIP code, or a larger geographic unit such as a health, police, or voting district. GIS methodology assumes that attributes of any particular geographic unit characterize the entire unit (Bivand, Pebesma, and Gomez-Rubio 2008). Therefore, the ideal geographic reference is the smallest geographic unit, creating more homogenous spaces and allowing researchers the greatest flexibility to aggregate data into larger geographic units. Unfortunately, data for small geographic units are often unavailable.

DATA COLLECTION

Based on the literature on loss detailed above, the authors constructed a CLI comprising six variables reflecting the types of losses experienced by various households: foster care placement, job loss, loss of housing through foreclosures, untimely death, long-term hospitalization, and incarceration. The data were collected from a variety of public and private agencies, and the study was approved by the Hunter College Institutional Research Board. The CLI is part of a larger research project that explores the relationship between adverse neighborhood conditions (accumulated disadvantage), stress, and the concentration of health and social problems in particular neighborhoods. All variables are presented in the form of rates, as per appendix A and tables 1 and 2. The choice of data reflects the

TABLE 1. Above- and Below-Average Losses in High-Loss Neighborhoods

High-Loss Neighborhood	Foster Care	Unemployment	Foreclosure	Untimely Death	Long-Term Hospitalization	Incarceration
Bronx	++	+	++	+	+	+
Brooklyn	+	+	++	+	+	+
Harlem	+	+	—	++	+	+
Jamaica	+	+	++	+	+	—
Staten Island	++	+	+	++	—	—

Note.—+ = loss is above citywide average; — = loss is below citywide average; ++ = highest-ranking loss by neighborhood.

TABLE 2. Above- and Below-Average Losses by Neighborhood in Low-Loss Neighborhoods

Low-Loss Neighborhood	Foster Care	Unemployment	Foreclosures	Untimely Deaths	Long-Term Hospitalization	Incarceration
Manhattan	—	—+	—	—+	—+	—
Flushing	—+	—	—	—	—+	—

Note.— = below citywide average; —+ = highest-ranking loss among those that are below average.

criteria described earlier in this article but also the availability of data for specified variables that have a reference to a location (address or area), the scale (areas should represent the behavioral space of an average citizen; in New York City that is approximately 2 square miles), and the most commonly used administrative boundaries in agency reporting.² Whenever possible, data drew on the smallest available geographic units, such as postal addresses, census tracts, and ZIP code areas. When smaller units were unavailable, data based on larger units, such as hospital or community districts, were used.³ Note, however, that the boundaries of the larger police, health, education, and other departmental districts do not match each other, a phenomenon referred to in geography as the Modifiable Area Unit Prob-

2. In urban planning, and here in particular in transit-oriented planning, US literature says that Americans are willing to walk one-quarter mile to a transit stop. New Yorkers are willing to walk a lot more (on average 20 minutes) and faster (3 miles an hour), which amounts to covering a distance of 1 mile. Compromising to arrive at a conservative estimate and to include children and the elderly, the authors used a figure of 0.8 miles, which, using the formula for the area of a circle, results in approximately 2 square miles (Thompson 2007; America Walks 2013; Environmental Protection Agency n.d.).

3. Community districts are the political-area units of the members of New York City’s City Council.

lem (Openshaw 1984). The following section explains how we dealt with the problem to combine data collected for different geographic spaces.

DATA ANALYSIS

GIS technology helped to solve the problem of unmatched reporting units by using dasymetric mapping (Langford and Unwin 1994; Mennis 2003), a technique to disaggregate the data—in our case the distribution of US Census block-level data to New York City building data. Each building was assigned a value based on its share in the distribution of a particular variable. The data were then reaggregated to a geographic unit of interest, in this case a ZIP code tabulation area.

The availability of data dictated the use of ZIP-code-level data as the common denominator for this study. While the data on rates of incarceration were simple to aggregate into ZIP-code-area geographies because they are address level, the data on untimely deaths required a more complicated approach. We used GIS to convert these data from New York City Community Districts into ZIP codes by translating original data into fine-grained raster data, which places the data into cells that are not confined to a preexisting geographic unit. The raster data set was then recombined into ZIP code areas based on the mean value of all raster cells that fall within a ZIP code. Then, using pycnophylactic interpolation (Tobler 1979), the rates were redistributed according to where people actually live rather than spread indiscriminately throughout a community district.

The measurement scales available for each of the six community loss variables vary widely (e.g., people per 100,000 households, per capita income, and days of hospitalization). To make them comparable, the data were standardized into 10 loss ranks or deciles (using Jenks natural breaks), where the lowest decile represents the least loss and the highest decile represents extremely high loss. Jenks is regularly used in spatial data analysis because it divides the data into classes based on natural breaks and thus provides a scale based on actual distribution of the data's characteristics (Jenks 1967; Congalton 1991). Based on the 10 loss ranks, a community loss rank was calculated for each loss variable for each New York City ZIP code area. The sum of the six losses became the basis for the CLI, which measures the aggregated or accumulated loss for each ZIP code area. The CLI identifies ZIP code areas where residents are regularly exposed to multiple losses at the same time, denoting a stressed community. The data

are presented in visual form on choropleth maps that use different colors or shades to depict the average values in each area. The map of figure 1 depicts the distribution of each ranked variable as well as that of the accumulated loss in New York City.

VISUALIZING COMMUNITY LOSS IN NEW YORK CITY

Figure 1 includes seven inset maps (*a–g*) that visualize community loss in New York City neighborhoods. Six individual maps (inset maps *b–g*) depict the citywide distribution of each of the following losses: foster care placement (F), incarcerations (I), unemployment (U), long-term hospitalizations (H), premature deaths (D), and foreclosures (C). The aggregated loss map (inset map *a*) is a composite of all six losses that effectively depicts high-loss areas suffering multiple losses at the same time, pointing to a condition of accumulated disadvantage. Taken together, the maps in figure 1 depict New York City as sharply divided into high-loss and low-loss areas. The following data analysis reveals more detail about New York City's stressed communities.

The analysis of community loss moves from the maps in figure 1 to bar charts and superimposed whisker diagrams (figs. 2–7). Given page size and the sheer size of New York City, it was not possible to place the charts directly onto the citywide maps. However, labels on the bar charts reference the high- and low-loss areas on the maps, making it easy to refer from chart to map and vice versa. In addition, figures 4 and 5 contain maps of individual neighborhoods that are small enough to allow for the combination of bar charts and maps.

The bar charts in figures 2 and 3 depict the rank or contribution made by each of the six losses to the overall experience of loss in the high- and low-loss areas, respectively. The bar charts in figures 6 and 7 rank the population groups that experience the community losses in the neighborhoods in which they live by the decile calculation described earlier. The top of each bar represents the average rank in each area, with the lowest rank or decile representing the lowest level of loss and the smallest population group and the highest decile the highest loss and largest population group in the areas. The losses in each area are compared to each other by examining them in relation to the citywide average of five.

The whisker diagram superimposed on each bar chart indicates the spread of observed values for each type of loss and for each population



FIGURE 1. Accumulated community loss and its contributing factors. *a*, accumulated community loss; *b*, fostercare placements; *c*, incarcerations; *d*, unemployment; *e*, long-term hospitalizations; *f*, premature deaths; *g*, foreclosures.

Each loss type (*b–g*) is a rate that has been standardized to a 1–10 scale for each ZIP code area. Losses were then classified using Jenks's natural breaks into low, medium, and high losses. The ranks of each ZIP code area were then added to form the accumulated community loss. The range of these was again classified to form areas of low, medium, and high accumulated loss. For data sources, see table 1.

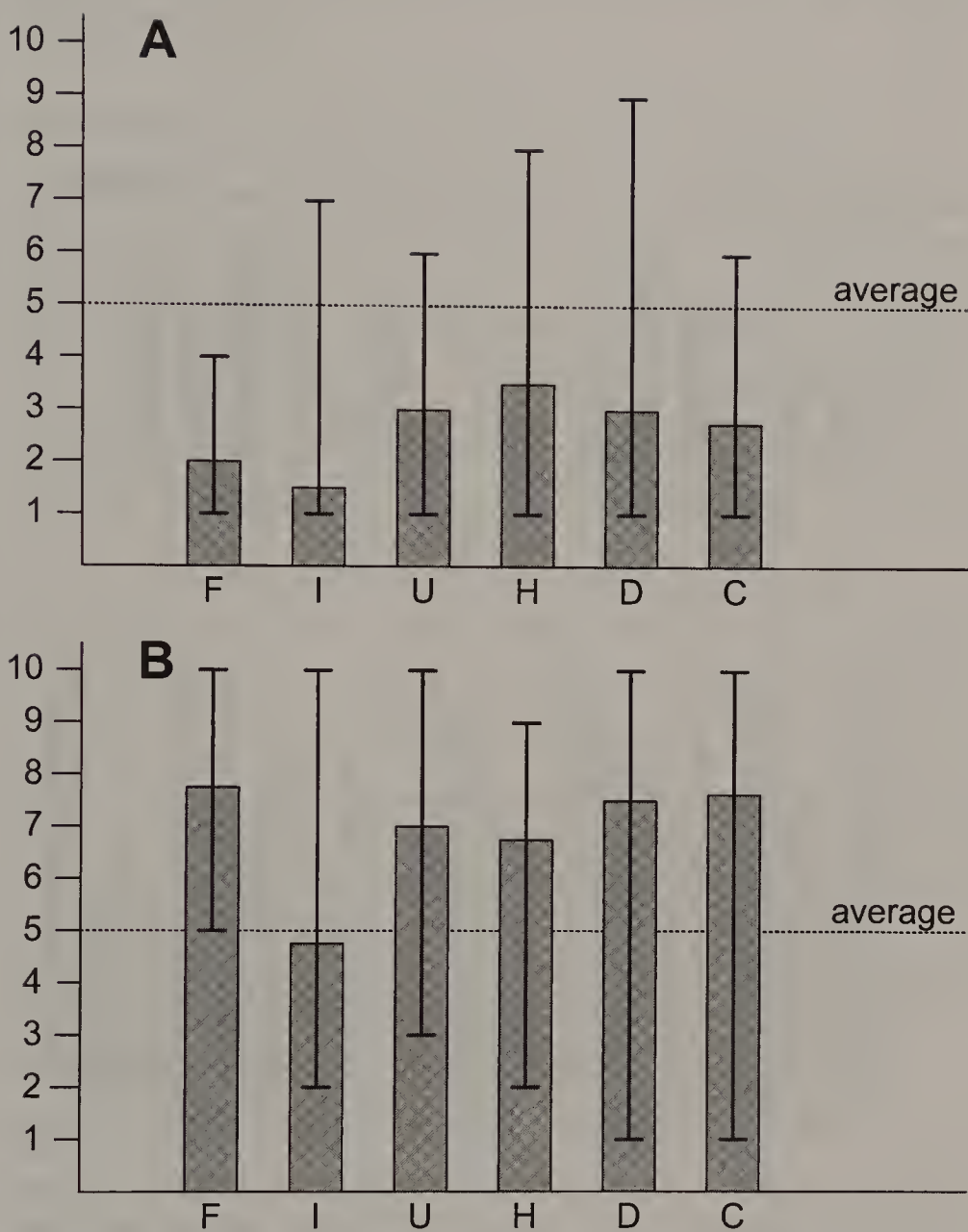


FIGURE 2. Loss ranges by loss type. *A*, low-loss areas; *B*, high-loss areas. The height of the bars represent the average observed values. The top and bottom horizontal lines of the superimposed whisker diagram represent the maximum and minimum observed values, respectively. Foster care placement (F), incarcerations (I), unemployment (U), long-term hospitalizations (H), premature deaths (D), and foreclosures (C).

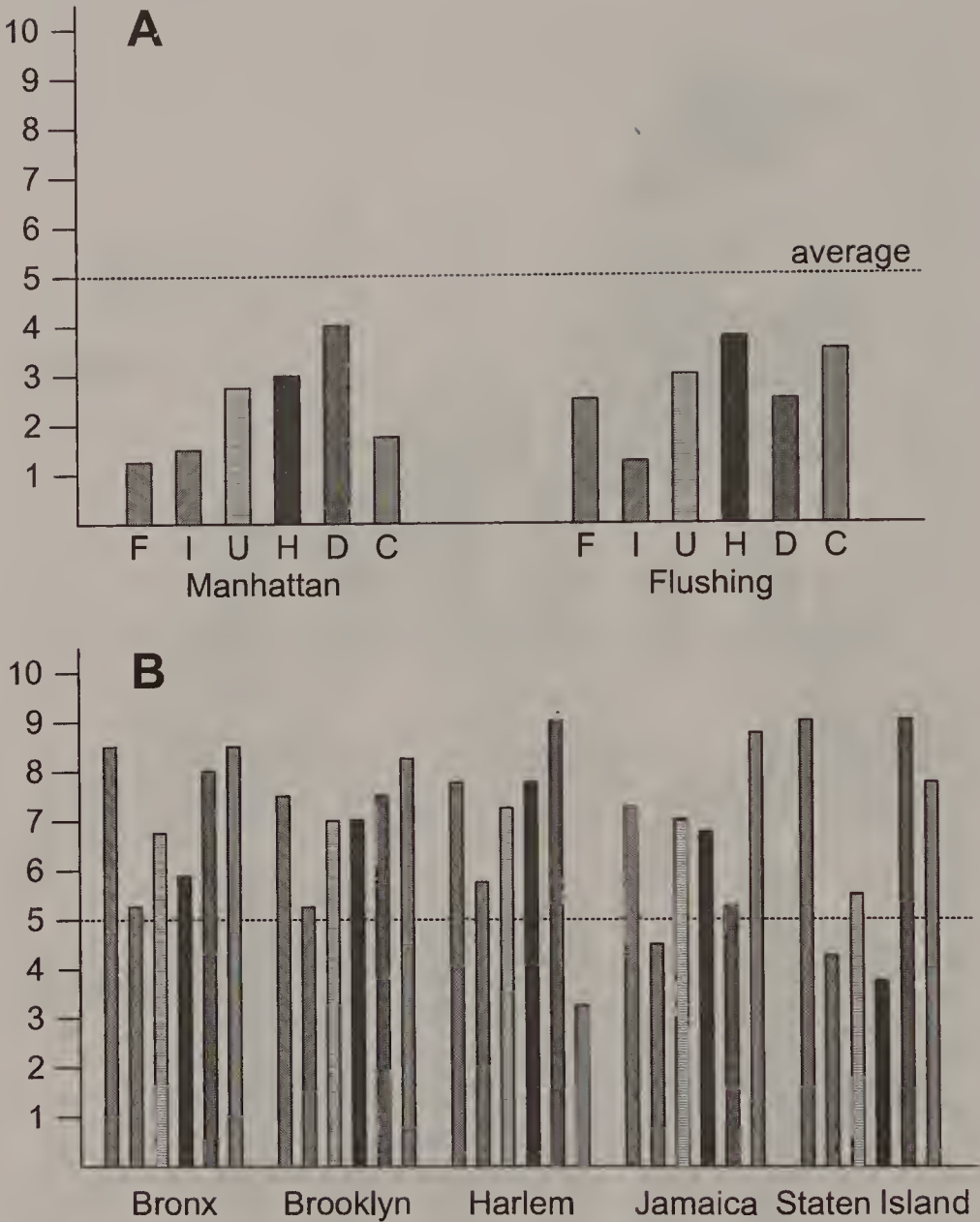


FIGURE 3. Loss ranges by loss type. A, low-loss areas; B, high-loss areas. Foster care placement (F), incarcerations (I), unemployment (U), long-term hospitalizations (H), premature deaths (D), and foreclosures (C).

group. If the average values represented by the height of the bar characterize the high- and low-loss areas in general terms, the ranks represented by the top (maximum observed value) and the bottom (minimum observed value) of the whisker diagram highlight variations among the ZIP code areas within the high- and low-loss areas. That is, in one or more

ZIP code areas, the loss experience deviates up or down from the average observed value for that area. The same applies for the interpretation of population groups.

GEOGRAPHICAL ANALYSIS OF COMMUNITY LOSS

The following analysis of the geography of community loss in New York City consists of two parts. The first part provides information about the spatial distribution of community loss, showing the concentration of each type of loss within high- and low-loss areas identified by the CLI (figs. 2–3). The second part focuses on the distribution of the population groups living in the high- versus the low-loss areas (figs. 6–7), estimating which groups are likely to experience the most and the least community loss. While the maps include data on high-, medium-, and low-loss areas, due to limitation of space, the overall discussion is limited to high- and low-loss areas.

To understand the spatial distribution of loss in New York City and its neighborhoods, both losses and population analyses were regionalized by conducting analysis at three increasingly smaller geographic levels: citywide, neighborhoods, and ZIP-code-area-level communities within individual neighborhoods. We decided to conduct multiscale analysis because of the size and complexity of New York City neighborhoods; each of the secondary regions is the size of a large US city (approximately half of a million people). New York City is also very diverse (New York City Department of City Planning 2013); each of the identified neighborhoods differs from the others as much as Minneapolis does from New Orleans. Each level of analysis adds more detailed information useful for researchers, community members, and policy makers.

The citywide analysis of losses is depicted in the maps of figure 1, and figure 2 ranks the contribution made by each loss relative to the citywide average. The uneven distribution of loss throughout New York City confirmed the need for further analysis, especially since some of the losses carried more stigma than others. The first regionalized analysis (fig. 3) highlights five specific high-loss neighborhoods that are colored black on figure 1 and two specific low-loss neighborhoods that are colored white on the maps. The spatial clustering of like-ranked ZIP code areas reveals that the distribution of loss is not random. Moreover, in the high-loss areas, the more highly stigmatized losses (e.g., foster care, incarceration, job loss, and foreclosure) play key roles and are more prominent than the less

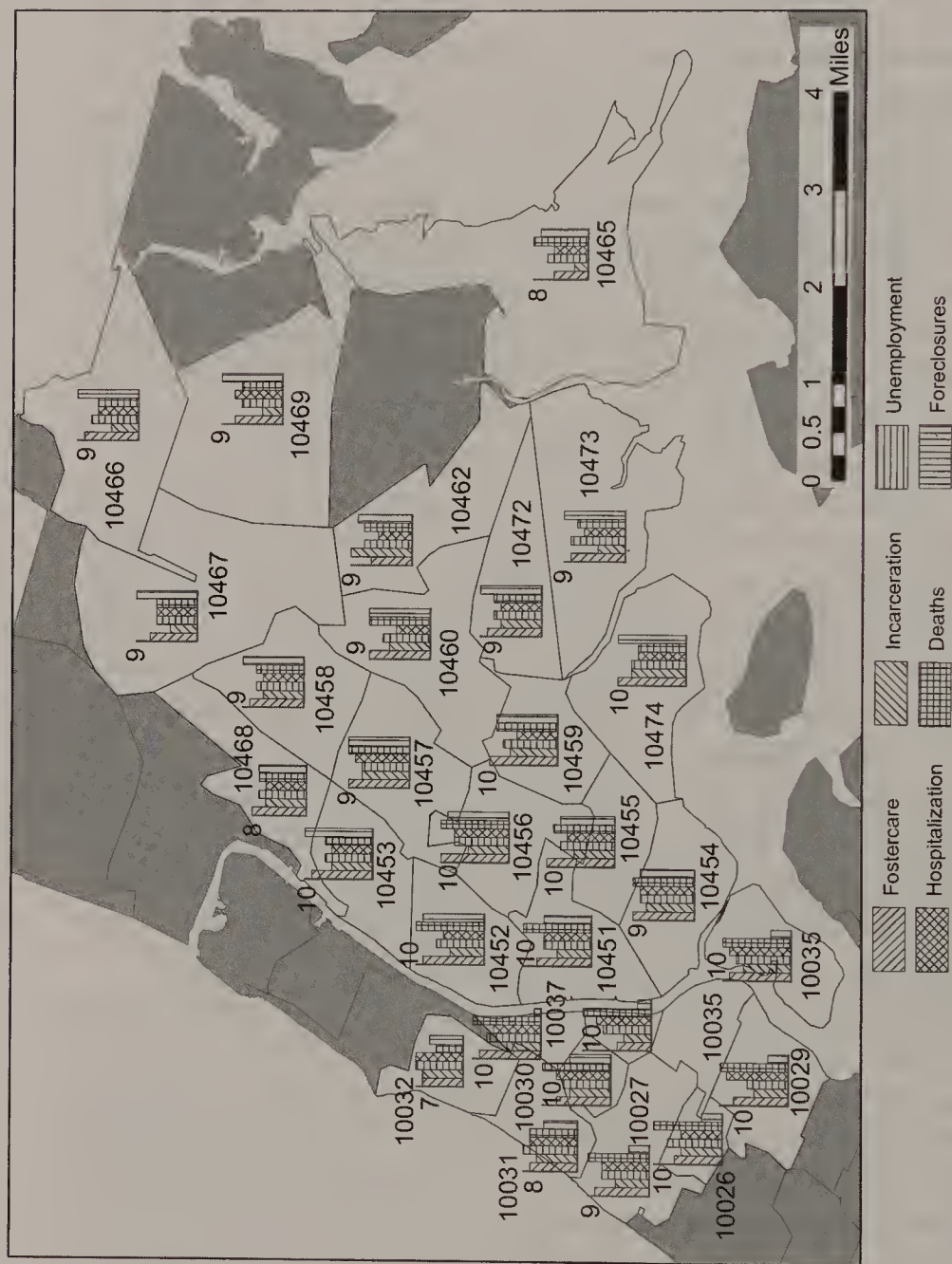


FIGURE 4. High-loss area. Accumulated community loss at the neighborhood level, Harlem and the Bronx. The high-loss areas are depicted with transparent (white) background to contrast with the bar charts contained in each ZIP code area. Five-digit numbers denote the actual ZIP code of the area; one- or two-digit numbers represent the highest loss level observed in the respective ZIP code area.

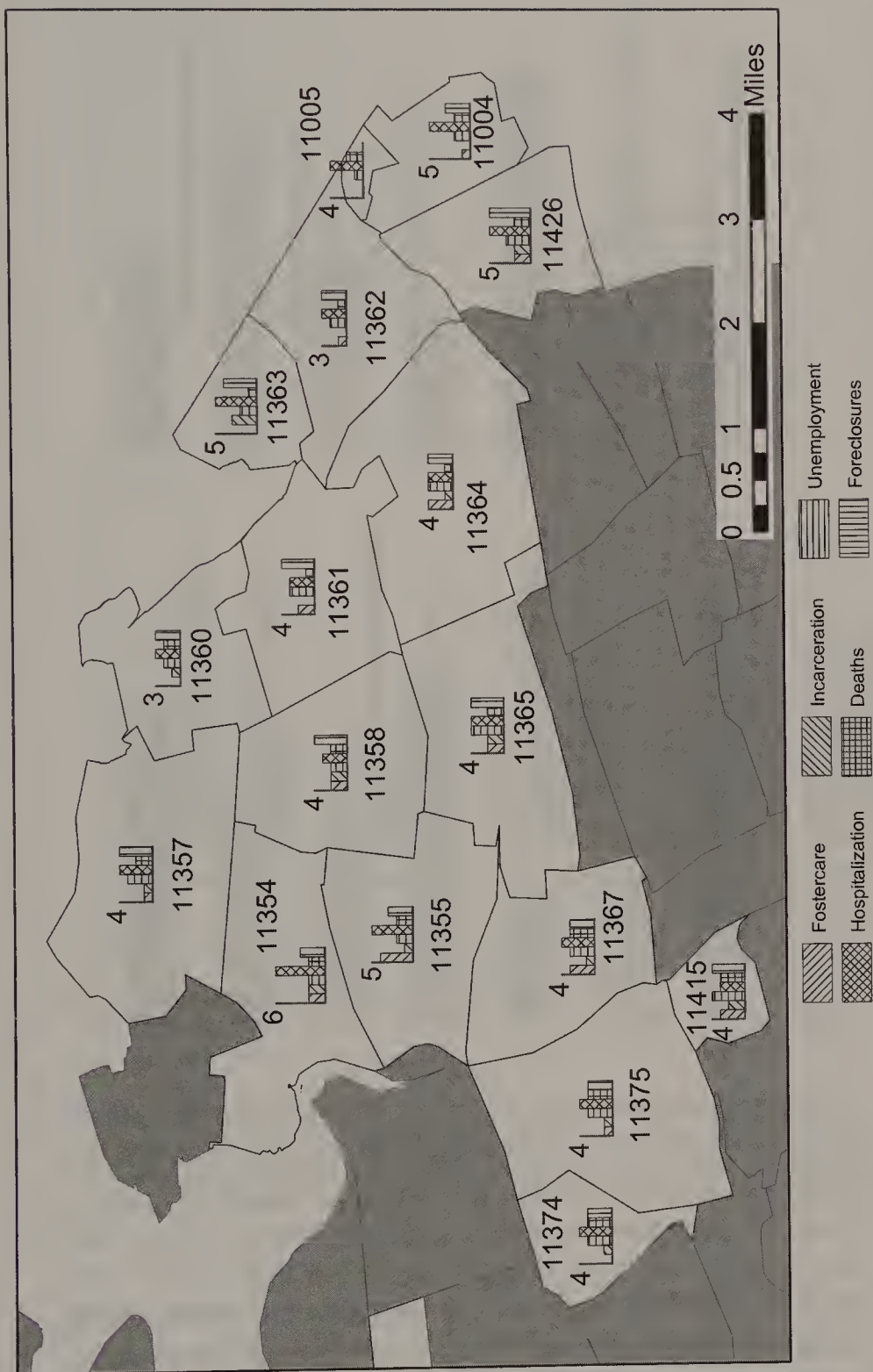


FIGURE 5. Low-loss area. Accumulated community loss at the neighborhood level, Flushing, Queens. The low-loss areas are depicted with transparent (white) background to contrast with the bar charts contained in each ZIP code area. Five-digit numbers denote the actual ZIP code of the area; one- or two-digit numbers represent the highest loss level observed in the respective ZIP code area. The scale of the bar charts in this figure is the same as that in figure 4.

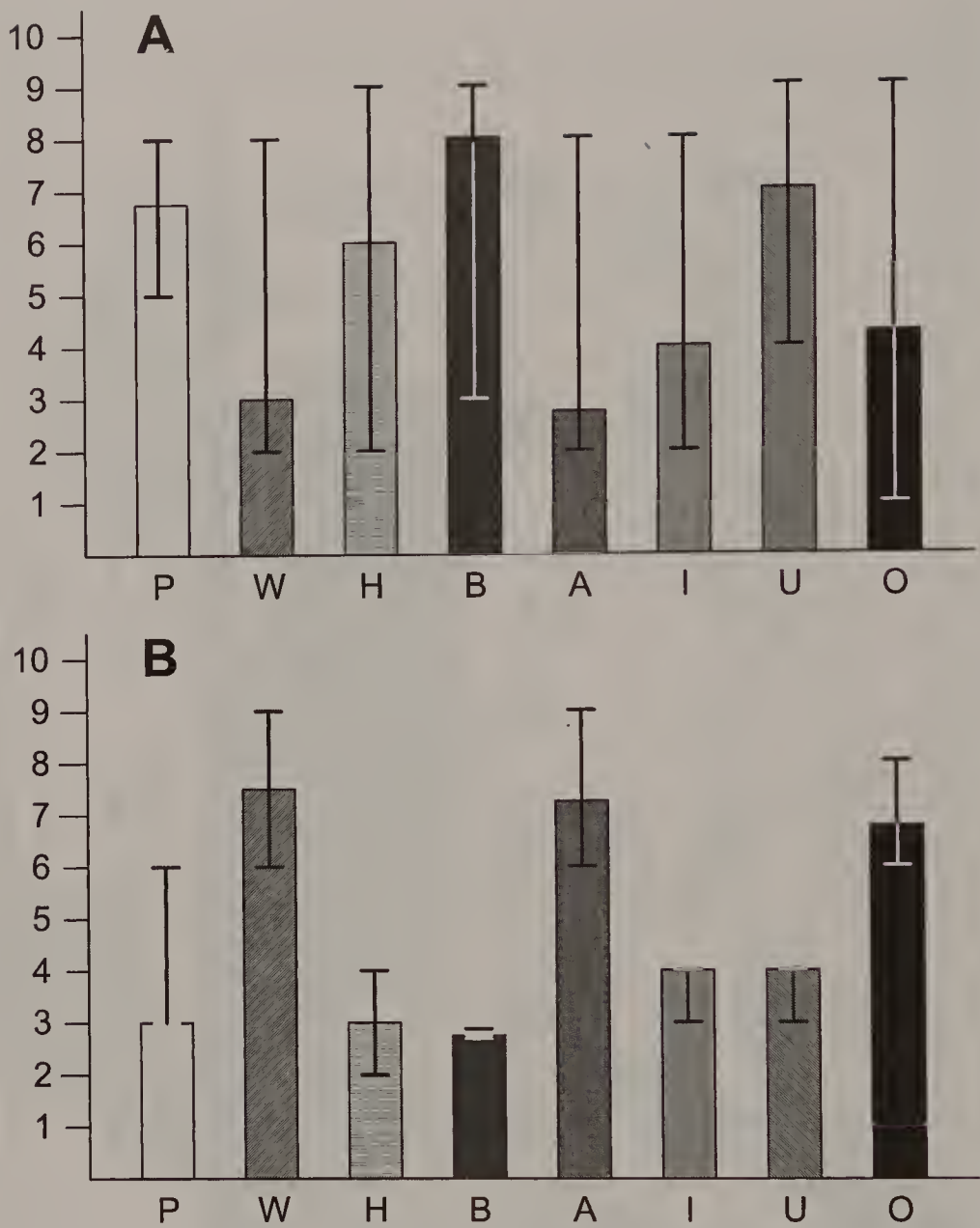


FIGURE 6. Demographic characteristics. *A*, high-loss areas; *B*, low-loss areas. The height of the bars represent the average observed values. The top and bottom horizontal lines of the superimposed whisker diagram represent the maximum and minimum observed values, respectively. Below poverty (P), white (W), Hispanic (H), black (B), Asian (A), recent immigrant (I), under age 5 (U), and over age 64 (O).

stigmatized losses (untimely death and long-term hospitalization). This spatial clustering raises the question of what else these ZIP code areas share, leading to the second regionalized analysis, which focuses on the losses within ZIP code areas and their communities located within two exemplary neighborhoods. Figures 4 and 5 depict this ZIP-code-area or

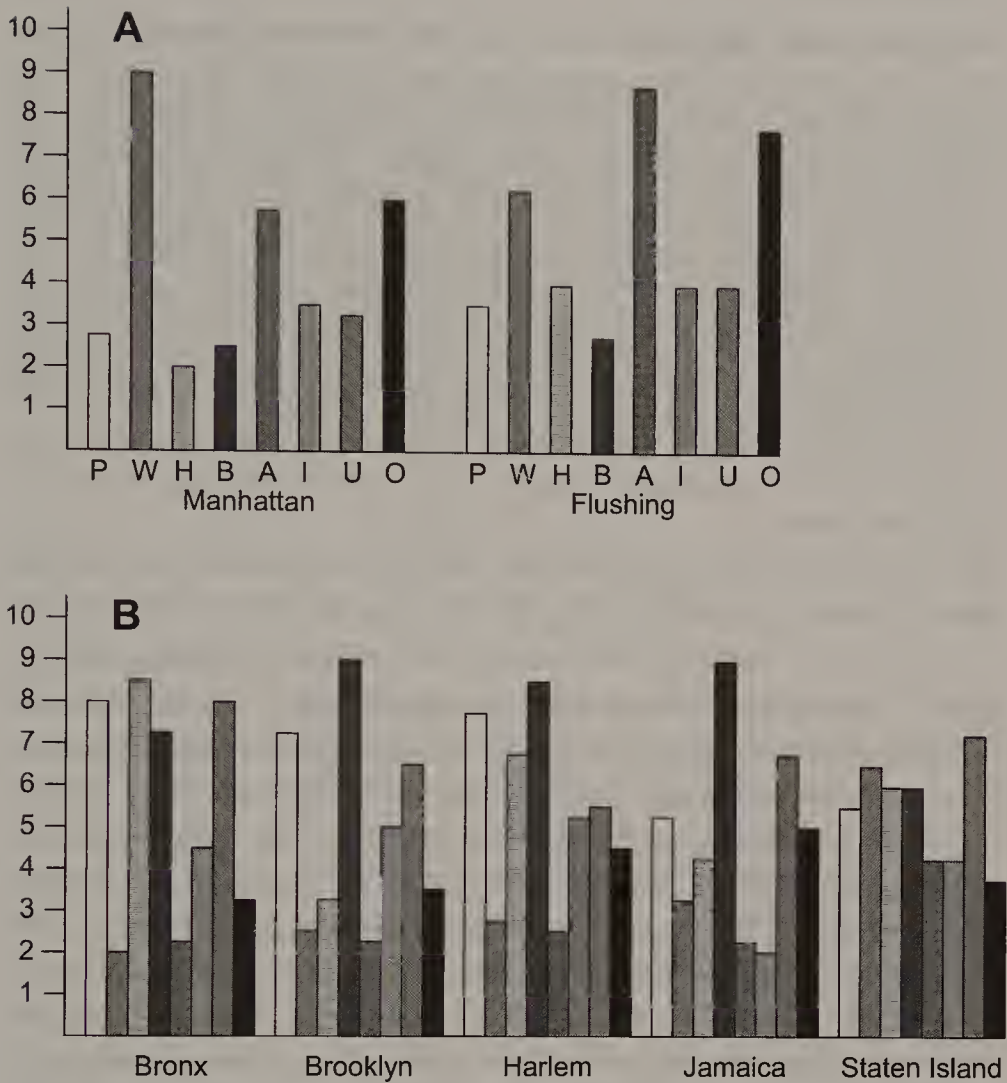


FIGURE 7. Demographic characteristics by neighborhood. A, low-loss areas; B, high-loss areas. Below poverty (P), white (W), Hispanic (H), black (B), Asian (A), recent immigrant (I), under age 5 (U), and over age 64 (O).

community-level analysis for one high-loss and one low-loss community, in which bar charts are superimposed on each of two maps (it was not possible to present a similar procedure on New York City-wide maps as the figures would have become too complex). This analysis uncovers patterns of specific losses that are more precisely located than in the larger maps, and it cautions us against stereotyping neighborhoods based on perceived averages or popular profiles. The demographic analysis reveals that the population groups living in the more and less privileged neighborhoods are not the same and that the loss differential falls more heavily on the already disadvantaged groups than on the others.

THE CITYWIDE DISTRIBUTION OF COMMUNITY LOSS

Maps *b–g* in figure 1 show the distribution of each of the six losses in New York City. Map *a* (the aggregated loss map) combines all six losses into a single map. Together, the maps reveal a rather sharp divide between New York City's high- and low-loss neighborhoods. The aggregated losses amount to an experience of accumulated disadvantage that is known to undermine community well-being, social capital, and solidarity. In contrast, the residents of low-loss areas benefit from the accumulated advantages associated with having to deal with many fewer losses.

High-Loss Areas

The bar chart in figure 2 depicts the relative contribution made by each type of loss to the quality of life in the city's high- and low-loss areas on a scale of 1 to 10, where the value 5 always depicts the citywide average. The height of each bar shows that five of the six losses rise far above the citywide average. Comparison of the bar heights reveals that the loss of children to foster care placement represents the most severe community loss in the high-loss areas. It reaches 8 for foster care, compared to just under 8 for long-term hospitalization and untimely deaths, just below 7 for foreclosures and unemployment, and 5 (just at city average) for incarceration. The whisker diagrams that depict the range of each loss indicate both the severity of the loss and its spread. The maximum and minimum values (the top and bottom lines of the whisker diagrams, respectively) indicate that the average for each loss (represented by the height of each bar) does not represent all the ZIP codes in the area. For example, the top line stands at 10 for five of the six losses and at 9 for incarceration. The minimum ranges from 2 to 5. These differences indicate that the contribution of each loss in the high-loss area is somewhat variable. The rank of foster care placements stands out again; its high average combined with its high maximum and high minimum values indicate that this is one of the major losses for residents living in high-loss areas of New York City.

Low-Loss Areas

The low-loss areas (see fig. 2) present a starkly different picture of the experience of loss. Here the average for each of the six losses falls far below the citywide average, dropping to about 3 for four of the losses (e.g.,

unemployment, foreclosure, untimely deaths, and long-term hospitalization), 2 for foster care, and 1 for incarceration. However, the loss experience is varied even in these areas. The top line of the whisker diagram rises above the citywide average for five of the six losses (all but foster care). In contrast, the bottom line consistently registers a very low value of 1 for all six losses. Variability around the regional average is most pronounced for untimely death and long-term hospitalization. That some ZIP code areas in both the high- and low-loss areas have higher than average unemployment rates may be due to the state of the economy at the time this study was conducted. The following regionalized analysis addresses the question of what is happening in those outlier ZIP code areas.

PATTERNS OF LOSS BY NEIGHBORHOOD AREAS

High-Loss Neighborhoods

The cross-neighborhood comparison deepened the citywide analysis by revealing important differences among the five high-loss neighborhoods (see fig. 3). At first glance the data seem to confirm the citywide finding that nearly all of the losses rise above the citywide average. However, a closer look reveals that the neighborhoods vary in relation to both number of losses that rise above the citywide average and the type of loss that ranks highest in each neighborhood. Table 1 summarizes these patterns.

Table 1 reveals that in two neighborhoods (the Bronx and Brooklyn) all six of the losses rose above the citywide average (indicated by +), followed by Harlem, where only foreclosure fell below the citywide average due the lack of owner-occupied homes in this neighborhood of high-rise apartments. Five losses also rose above the citywide average in Jamaica, but only three did so in Staten Island. Despite the presence of fewer losses, Harlem and Jamaica shared four of the five above-average losses. In three of these high-loss neighborhoods, a few losses fell below the citywide average (indicated by –).

Table 1 also shows which losses ranked highest in each neighborhood (++). Three losses stand out: foreclosure (three neighborhoods), foster care (two neighborhoods), and untimely death (two neighborhoods). Although unemployment rises considerably above average in all five neighborhoods, it ranks slightly below the above-noted losses in four neighborhoods and much lower in Staten Island. In other words, while noteworthy by itself, unemployment does not rank as disproportionately high (i.e.,

much higher than the city average) in the affected neighborhoods as do foster care, foreclosure, and untimely death. The residents of all the high-loss neighborhoods experience considerable loss, but the residents of the Bronx and Brooklyn have to contend with all six losses, one or two of which are also the highest ranked.

Low-Loss Neighborhoods

Figure 3 also depicts the loss experience of two different low-loss neighborhoods, Manhattan and Flushing. While all the losses in the low-loss area fall below the citywide average of five, the neighborhood-level analysis revealed that the pattern of losses varied again by neighborhood.

Table 2 indicates that all six losses fell far below the citywide average in each of the two low-loss neighborhoods. The three highest-ranking losses in Manhattan in rank order are untimely death, long-term hospitalization, and unemployment. The three highest-ranking losses in Flushing are long-term hospitalization, unemployment, and foreclosure. These two low-loss neighborhoods benefit from having less loss and low stigma attached to its highest-ranking losses, which may help to lower stress levels.

Detailed Analysis of Harlem and the Bronx (High-Loss Communities)

The patterns found in the first neighborhood-based regionalization analysis raised new questions: if losses were concentrated in particular ZIP codes, did these ZIP codes share any features, and were there any other distinguishable patterns? To explore these questions, it was necessary to look at still smaller geographic units. Thus, the second regionalization analysis (figs. 4 and 5) brought the loss experience closer to home by focusing on two exemplary neighborhoods and the communities within them. Figure 4 shows the distribution of the six losses by specific ZIP code areas in the high-loss communities of Harlem and the Bronx and reveals several spatial clusters of high-ranked losses.⁴ For example, untimely death is most severe in several ZIP codes that cluster along both banks of the Harlem River. The reason behind this hot spot is a little more obvious

4. Whenever a spatial cluster is detected, the phenomenon is nonrandom, which means that driving factors are at work in these locations. It is beyond the scope of this article to reason about what these factors are, but the very existence of such clusters alerts researchers and policy makers to the needs of such a “hot spot” area.

for a similar clustering of high foreclosure rankings in several ZIP code areas that form a contiguous trail from eastern to the northern Bronx: this string of communities represents a ring of suburbs into which poor and minority groups were displaced. As opposed to the wealthier (white) suburbs further out, they became prime victims of predatory lending during the last housing crisis (Webber 2001; Neighborhood Economic Development Advocacy Project 2002; Nier 2008; Goldstein and Urevick-Ackelsberg 2009). Foster care placement, which showed up as very high loss in the citywide and neighborhood analyses, topped the scales in three neighboring ZIP codes and tied first place in three other nearby ZIP codes that together form the epitome of the South Bronx.⁵ Incarceration stood above average in three neighborhoods, but in no neighborhood did it show up as the highest ranking, and it did not form a unique cluster. Unemployment has a midrange effect in virtually every ZIP code area, suggesting a more uniform effect in the high-loss neighborhoods.

Detailed Analysis of Flushing, Queens, a Low-Loss Community

Figure 5 examines the distribution of the six losses by ZIP code in the low-loss communities of Flushing and Queens. As expected, the heights of each bar in the bar charts are considerably lower. Although they differ by ZIP code, several losses hardly register at all, except for long-term hospitalization, which ranks highest in seven ZIP codes and ties for first place in four others.⁶ Foreclosures rise to the top in two adjacent ZIP codes and tie for first in six others, four of which are contiguous and characterized by suburban, yet relatively less affluent, demographics. While incarceration is virtually nonexistent in three of four adjacent ZIP codes on the eastern border of Flushing, it ranks rather high in one ZIP code on the northern border of this cluster. When ZIP codes with higher rates of foreclosure, incarceration, or other losses sit on the border of more stable ZIP codes, it raises the tipping point question: at what point will the drift of

5. Although once being made up of vibrant neighborhoods such as Mott Haven, Hunts Point, Melrose, Morrisania, and Highbridge, now this area has deteriorated and is just called “South Bronx”; it is a place that white people as well as many people from other parts of the Bronx are afraid to go to (Roby 2008).

6. Not as much a probable cause but by way of a possible lead, these communities have a disproportionally high number of elderly East and South Asians who joined their families after their kin received permanent residence or citizen status.

problems from the worse-off area destabilize the better-off area? Although low-loss areas typically attract little attention from a policy intervention perspective, this fine-grained analysis detected such possible tipping points that merit early notice to prevent further decline.

DEMOGRAPHIC ANALYSIS OF COMMUNITY LOSS

The previous section described the spatial variation of community loss but did little to explain who lives in the high- and low-loss communities. The following discussion examines loss in relation to race and ethnicity (white non-Hispanic, Hispanic, black, and Asian persons), age (children under age 5 and adults over age 64), recent immigration status, and income. It focuses on who is most and least likely to live in stressed communities characterized by accumulated disadvantage. As before, regionalization at the citywide and neighborhood levels provides us with the means to avoid misleading generalizations and instead to fine-tune our understanding of the relationship between people, place, and the experience of loss.

THE CITYWIDE ANALYSIS OF PEOPLE IN PLACE

The citywide analysis reveals clear and troubling distinctions between who lives in the high- and low-loss areas. As in the loss analysis, the height of the bars in figure 6 represents the average rank for each of the eight demographic groups under study. The whisker diagrams superimposed on the bars indicate how representative the average for each group is for the area as a whole. The sharp divide in age, income, and racial composition parallels the sharp divide between high- and low-loss areas in New York City.

The high-loss area is largely populated by four groups: black persons, poor persons, larger percentage of families with children under age 5, and Hispanic persons. Fewer whites, Asians, or adults over age 64 live here. However, the top and bottom lines of the whisker diagrams and the large spread between them indicate that the areas are not demographically homogenous. Rather one or more ZIP code areas house whites, Asians, and persons over age 64, who do not reflect the high-loss pattern.

The average demographics for the populations of low-loss areas appear as a mirror image of their high-loss counterparts. Here, three groups (white persons, Asians, and adults over age 64) rise far above the city-

wide average, while the five groups that ranked highest in the high-loss areas fall well below average. In contrast to the high-loss area, the top and bottom lines of the whisker diagram and the spread between them indicates that low-loss areas include few if any pockets (ZIP code areas) of people typically found in high-loss areas.

NEIGHBORHOOD LOSS AND DEMOGRAPHICS

A more regionalized look at selected high- and low-loss neighborhoods specifies the location of the different population groups and shows a varied demographic pattern. Figure 7 reveals that the loss experience of people differs by age, income, race and ethnicity, and immigration status even in seemingly similar high-loss (or low-loss) neighborhoods.

Black and Hispanic New Yorkers are overrepresented in the five high-loss neighborhoods, but the patterns differ. The black population exceeds the citywide average in all five high-loss neighborhoods, but more so in the Bronx, Brooklyn, and Jamaica. Hispanics exceeded the citywide average in only three high-loss neighborhoods (the Bronx, Harlem, and Staten Island) but more so in the Bronx and Harlem. Blacks far outnumber Hispanics in Harlem, Brooklyn, and Jamaica, where the average for Hispanics falls considerably below the citywide average. Hispanics outnumber blacks only in the Bronx, but both groups have the same rank in Staten Island. Both groups clearly have to cope disproportionately with multiple losses. However, the experience of loss is somewhat more pronounced for black New Yorkers than Hispanic New Yorkers.

White and Asian New Yorkers are overrepresented in the two low-loss neighborhoods, although their patterns also differ. Whites rank higher in Manhattan than in Flushing, while Asians rank higher in Flushing than in Manhattan. The main exception is Staten Island, which is a predominantly white borough and by New York City standards an almost suburban part of the city. The northern part of the island ranks as high-loss area, which makes this high-loss area unique because in all other high-loss areas the minority group is the majority. The combination of predominantly white population and high loss in Staten Island is exceptional in New York City. Asian New Yorkers are also underrepresented in high-loss neighborhoods, falling far below the citywide average in all of them. With the exception of some white persons in Staten Island, both whites and Asians generally do not live in the communities that this study identifies as stressed, where accumulated loss diminishes the quality of life.

The share of recent immigrants falls below the citywide average in both low-loss neighborhoods and in three high-loss neighborhoods. It approaches the citywide average in two other high-loss neighborhoods (Brooklyn and Harlem). The high- and low-loss areas house a smaller share of recent immigrants, because many tend to settle in medium-loss areas (New York City Department of City Planning 2013), avoiding the drag of high-loss areas but unable to afford settling in low-loss areas.

Children under age 5 and adults over 65 live in strikingly different places. Large numbers of children inhabit each of the five high-loss neighborhoods, especially the Bronx and Staten Island whereas, relative to other neighborhoods, fewer adults over age 65 can be found here. In contrast, children under age 5 are underrepresented in the two low-loss neighborhoods of Flushing and Manhattan, where adults over age 64 are overrepresented—even more so in Flushing than Manhattan. That such a high proportion of young children live in communities experiencing stress does not bode well for their development, given how chronic stress affects health and well-being of both the individual and the community.

Poor New Yorkers are overrepresented in three of the five high-loss neighborhoods, ranking far above the citywide average in the Bronx, Harlem, and Brooklyn and matching the average in Staten Island and Jamaica. The share of poor New Yorkers living in low-loss areas falls below the citywide average. This overlap between community loss and poverty represents one step in understanding what factors may contribute to and reinforce poverty.

DISCUSSION AND CONCLUSION: PLACE MATTERS

The CLI developed in this article adds to an understanding of place. It identifies aggregated resource loss as a problematic feature of neighborhood life that remains largely unrecognized and unmeasured, focuses on the accumulated or collective resource loss as a major source of community-wide stress, and helps to unpack poverty by identifying community loss as a largely unstudied aspect of impoverished communities.

Loss is well known as a potentially momentous event for individuals. However, the aggregated effect of living in a neighborhood characterized by many losses highlights the importance of place. The CLI follows a strong tradition in the human services that place matters (Steinberg and Steinberg 2006). In the late nineteenth century, settlement house work-

ers at Chicago's Hull House developed a series of community maps as a means of assessing social and economic injustices in neighborhoods. More recently many scholars have pointed to the benefits and rewards of using GIS to help carry out a wide range of social service research and social agency functions (Queralt and Witte 1998; Tomkins and Southward 1998; Hillier 2007).

In this study, CLI documents the geography of resource loss in New York City by measuring both the loss of household members to foster care placement, incarceration, untimely death, and long-term hospitalization and the loss of key assets such as one's job and home. The analysis reveals that resource loss is amassed and concentrated in some but not other neighborhoods, that the pattern of loss that is both widespread and variable by location, and that a group's vulnerability to the adverse effects of community loss depends on where they live.

We conducted analysis on three increasingly smaller spatial units—citywide, specific neighborhoods, and ZIP code areas that serve as the geographic setting of communities. The citywide analysis is able to identify the areas in New York City characterized by high, medium, and low loss and the relative contribution each loss made to the overall experience of loss, but not to pinpoint the loss experience in specific neighborhoods within each area. The neighborhood-level analysis picks up where the citywide analysis leaves off. A cross comparison of five high-loss and the two low-loss neighborhoods shows that the scale and scope of loss varies by neighborhood in both the high- and low-loss areas. The analysis of two exemplar neighborhoods, one high-loss neighborhood and one low-loss neighborhood, explores loss patterns in more detail. It more precisely identifies communities, where the experience of loss is found to be more intense than in other neighborhoods, discovering that high-ranking losses are associated with specific ZIP codes and ZIP code clusters.

Given the size and diversity of New York City, the variation that the citywide analysis shows is not surprising. However, the more detailed spatial analysis conducted in this study reveals otherwise invisible variation. Generally, smaller geographic units typically tend to be more homogenous and thus less varied. However, the neighborhood level and two smaller exemplar community analyses reveal that in New York City there is considerable variation within these smaller units. By pinpointing such neighborhood-based differences related to the experience of community loss, CLI data can be used to avoid profiling or stereotyping the neigh-

borhoods in each area and to identify criteria to help city officials both target and prioritize investments in local communities.

Finally, the growing awareness of the realities of place suggests the need to reconsider how local conditions may affect the lives of community members. The CLI reveals that a group's vulnerability to the adverse effects of community loss is associated with where the group lives. Some groups are more likely to live in high-loss neighborhoods, where they are exposed to multiple losses at the same time. These more vulnerable New Yorkers—blacks, Hispanics, children under age 5, and the poor—live under conditions of accumulated disadvantage, where they and other community residents, who live in close proximity to each other, regularly deal with multiple losses, as well as the health and social problems that accompany the resulting high levels of chronic stress.

When poor families, who already live on the brink of running out of resources, find themselves dealing with multiple losses amid diminishing resources, they become vulnerable to what Hobfoll refers to as resource depletion and to a catastrophic downward spiral of loss and stress, from which, he argues, it is difficult to recover. Moises Velasquez-Manoff (2013) reports that the toxicity of exposure to stress increases with a person's sense of helplessness and loss of control, both of which "tends to decline as one descends the socioeconomic ladder." Michael Marmot (2004) concludes that an adverse social position and the associated lack of control over one's life creates the conditions for chronic stress in the body. When a large number of residents living in proximity persistently face the depletion of multiple resources around the same time, the negative effects of the negative feedback loop also ripple through the wider community leaving it with a devastating concentration of health and social problems (Gennetian et al. 2013).

The findings based on the CLI have wider conceptual implications for the understanding of stress and the underlying components of poverty. Informed by Hobfoll's definition of stress as primarily socially situated and involving social consequences, the CLI contributes to the discussion of what might be called the social construction or the social determinants of individual and community stress. The removal of household members, the loss of work in an era of high unemployment, and the loss of one's home in a period of predatory lending qualify as socially situated or determined stressors that are known to yield negative social consequences. Individuals need to take personal responsibility for some aspects of these out-

comes, but even personal choices are typically shaped by external events such as globalization, the jobless recovery, criminalization of poverty, and the deregulation and financialization of the economy that lie beyond the control of individual and households.

By showing how losses pile up by location, the CLI helps to unpack poverty. It complicates the popular belief that the concentration of health and social problems in low-income neighborhoods reflects the choices and behavior of local residents rather than the consequences of daily and persistent exposure to accumulated disadvantage. The CLI identifies community loss as a major component of the collective experience of poverty. Some argue that those who live in high-loss neighborhoods suffer the loss of household members or economic assets due to their own irresponsible behavior (Murray 1984). Others, such as Marmot (2004), identify underlying causes, including material deprivation but also adverse social position and inequality. The findings based on the CLI support the literature reporting that living amid the accumulated disadvantage that characterizes high-loss neighborhoods can yield toxic stress, which in turn contributes to the problematic social and health behaviors known to cluster in high-loss neighborhoods (Marmot 2004; Acevedo-Garcia et al. 2010; Corbin et al. 2010).

The first perspective asks what the residents do wrong, attributing poverty to the behaviors of the individuals. The second perspective asks what happens to people regularly exposed to multiple losses and focuses on prevention (Marmot 2004; Keene and Geronimus 2011). Arguably, the latter question represents a more productive approach to problem solving, neighborhood development, and social change, as well as fostering civic participation. Marmot (2004) finds that social engagement, the ability to participate as a full member of society and the attendant self-esteem, is critical to positive health outcomes.

This article demonstrates the viability of the CLI as a new social indicator that can be used to describe and document the spatial distribution of community loss in New York City and potentially elsewhere. The findings based on the CLI help to unpack poverty further by suggesting that the largely unrecognized and unstudied experience of community loss is a potential source of stress in contemporary life. The findings also raise the prospect that exposure to large doses of community loss may help account for the concentration of health and social problems in low-income neighborhoods. The CLI points to community loss as target for service intervention, community planning, and prevention.

The CLI is only one measure the authors are developing as part of a larger study focused on the relationship between adverse neighborhood conditions, stress, and neighborhood-based health and social problems. As the needed geographic data become available, additional indicators will be used to capture the relationship between neighborhood conditions (e.g., health, housing, education, income, food, educational and other insecurities) and a range of resulting health and social problems. These data will permit an in-depth analysis of the hypothesis that stress operates as a pathway between exposure to adverse neighborhood conditions and the concentration of health and social problems in some but not other neighborhoods. It is hoped that the current findings, as well as our future research on community-level loss, will discourage the development of victim-blaming policies in favor of those that can undo accumulated disadvantage through prevention and social change.

APPENDIX

DATA USED

TABLE A1. Data Provenience

Household Loss	Data Source	Original Spatial Resolution	Release Date
Long-term hospitalization	NY Statewide Planning and Research Cooperative System (SPARCS)	ZIP code area	2000–2004
Unemployment	US Census, American Community Survey (5-year)	Census tract	2005–9
Incarceration	NYS Prison Administration	Home address	2006
Foster placement	NYC Administration for Children and Families	ZIP code area	2010
Untimely death	NYC Department of Health and Mental Hygiene	Community district	2010
Foreclosure	Local Initiatives Support Cooperation Center of Housing Policy, Urban Institute	ZIP code area	2008

TABLE A2. Transformation of Input Data to Rates

Variable	Definition
Placements	Placements per ZIP code area divided by number of households in that ZIP
Incarcerations	Incarcerations per ZIP code area divided by number of households in that ZIP
Unemployment	Number of people who receive unemployment insurance divided by the number of households in a ZIP code area
Hospitalization	Number of hospitalizations lasting longer than 180 days in a ZIP code area, divided by number of households in that ZIP code area
Premature deaths	Given as a rate (1/1,000) by New York City Department of Health
Foreclosures	Relative need value compared to the neediest in New York State as per HUD calculation

NOTE

Mimi Abramovitz is the Bertha Capen Reynolds Professor of Social Policy, Silberman School of Social Work at Hunter College and the CUNY Graduate Center. Abramovitz's interests include US social policy, women and social policy, poverty and place, and the impact of the current policy environment on the human service workforce. She codirects the Hunter Neighborhood Stress Project with Jochen Albrecht and is currently writing a book entitled *Gendered Obligations: The History of Activism among Low-Income Women in the United States since 1900*.

Jochen Albrecht is an associate professor for computational and theoretical geography at Hunter College and the CUNY Graduate Center. In addition to general work with GIS, he specializes in spatio-temporal analysis, data modeling, and qualitative spatial reasoning. Together with Mimi Abramovitz, he has devoted a good part of the past 5 years on the Hunter Neighborhood Stress Project, of which the research reported on here is a part.

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Juvenile Justice at a Crossroads: Science, Evidence, and Twenty-First Century Reform

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ABSTRACT Over a century after its founding, the juvenile justice system sits at an important historical juncture. Mounting concern that the juvenile justice system has strayed from its mission of rehabilitation has catalyzed a vocal campaign for large-scale policy reforms. The current reform movement invokes an abundance of scientific discourses, including neuroscience and evidence-based practice, to situate their arguments for a more humane, cost-effective, and youth-specific system. This article situates the contemporary discussion concerning juvenile justice reform in relation to the historical uses of science in debates concerning the optimal way to contend with youth crime. The author suggests that social workers ought to play a more visible role in decisions concerning juvenile justice law, policy, and practice, given the ethical dilemmas involved in these new scientific discourses and the important changes likely to emerge from the current systems change movement.

Over a century after the matriarchs of professional social work established the first official US juvenile court in Cook County, Illinois, the juvenile justice system sits at an important historical crossroads. Major federal and state legislative reforms during the 1980s and 1990s dramatically increased the overall prison population and eased the process of classifying juveniles as adults, leading to a sharp increase in the number of young people sentenced to juvenile correctional facilities and adult prisons (Shook and Sarri 2008). These changes gradually chipped away at the underlying premise of the juvenile justice system, that young people are fundamentally different from adults and developmentally amenable to rehabilitation. Moreover, mounting concern that juvenile detention and incarceration are overused and ineffective (Mendel 2011); reports of abuse, violence, and substandard care in correctional facilities housing minors (Ziedenberg and Schiraldi

1997; Vera Institute of Justice 2009); the disproportionate involvement of children of color and poor children at all stages of juvenile justice processing (Armour and Hammond 2009); high rates of recidivism (Mendel 2011); and the high costs of confinement have all contributed to a heightened perception that the juvenile justice system is in dire need of far-reaching reforms.

From a historical purview, this is not the first major crossroads in juvenile justice reform, nor will it likely be the last. As policy makers and scholars are continuing to grapple with fundamental questions surrounding the causes and remedies for juvenile delinquency, medical and social scientific discourses are influencing the larger conversations surrounding juvenile justice reform. In particular, advocacy groups and professional organizations draw upon burgeoning neuroscience research concerning the structure and function of the younger person's brain and on a body of social science research on evidence-based practices to support the argument for restoration of the original mission of the juvenile justice system: one that uniquely offers youth, who are structurally and functionally different from adults, the opportunity for rehabilitation. These discourses exert a major influence on policy, as evidenced by three recent US Supreme Court decisions regarding the constitutionality of adult sentences for juveniles convicted of capital crimes, as well as policy changes occurring in states and municipalities that reverse or scale back statutes to transfer or waive minors to the adult system.

In the 1980s and 1990s, the public was persuaded to support an increase in the rate of incarceration and "adult time for adult crime" (Deitch et al. 2009, 12) as a panacea for rising rates of violent crime. Now, as this relatively new science is used to influence policy, it is important to consider whether or not the current trends in juvenile justice reform represent a meaningful opportunity for reform or perhaps another wave of potentially reactionary policy. In this article, I draw upon the system's history as well as recent legal and scientific developments to examine critically current developments in juvenile justice reform and to draw some particular implications for the profession of social work. Over the past century, social work has strayed from the system that it designed, abandoning juvenile justice largely to the domain of law enforcement (Peters 2011). Yet, given the current call for broad-based changes that emphasize children's rights, ethics, racial justice, and empirically valid treatment strategies, this article suggests that it is time for social workers to take a more influential role in conversations about the future of this important social welfare system.

HISTORICAL DEBATES IN JUVENILE JUSTICE

When the juvenile justice system was fashioned in the earlier part of the US Progressive Era (1890–1920), its founders considered it to be a landmark child-saving victory, one that would address the unique needs of young people who were straying from a moral path. As part of the larger child-saving reforms of the era, social reformers and social workers were involved in developing a system—from specialized courts to designated reform institutions—to handle the often complicated cases of child delinquency and dependency (Platt 1969; Mason 1994; Tanenhaus 2004). In the social reformers' view, a separate system of juvenile justice represented great progress compared to the traditional treatment of delinquent youth in the adult criminal justice system or by arbitrary community standards (Platt 1969). By 1928, all US states followed the trend established in Illinois to devise their own systems of juvenile justice, which were often governed by widely variant and experimental rules and regulations (Lou 1927).

As several historical texts detail (Coffey 1975; Krisberg and Austin 1993; Tanenhaus 2004; Elrod and Ryder 2011), the juvenile justice system underwent a series of major changes that shaped the course of its policies and practices over its century of operation. Rather than reiterating this chronological history, this discussion will focus on three major tensions: etiology, diversion, and rehabilitation. These three central themes form a foundation for understanding the current crossroads in juvenile justice and the role of medical and social science in the current movement toward broad-based policy and practice reforms.

ETIOLOGY

In the Progressive Era, the prevailing belief among the founders of the juvenile justice system was that a newly identified group of young people, coined “adolescents” (Hall 1904), had less well-developed reasoning, maturity, and impulse control compared to adults. According to this logic, young people could not be considered fully responsible for their actions because their aberrant or delinquent behaviors stemmed from larger systems of influence, such as family problems, community conditions, and material deprivation. This view is congruent with other child-saving reforms of the era, such as restrictions on child labor and compulsory schooling, all of which aimed to demarcate childhood and adolescence through new institutions

and legal mandates (Platt 1969). An ecological view of juvenile delinquency undergirded the formation of the juvenile justice system and its multiple legal and institutional components, as social reformers believed that young people who were subject to these destructive outside influences should be afforded the opportunity for rehabilitation in a system designed to meet their unique developmental needs.

Evidence for this ecological view is evident in Sophonisba Breckenridge's and Grace Abbot's book *The Delinquent Child and the Home* (1912), a landmark study of over 14,000 cases that came before the Cook County juvenile court in its first 10 years of operation (1899–1909). In this text, the authors systematically examine home conditions and additional ecological correlates of delinquency. They repeatedly point to evidence of environmental influences on deviant behavior, with particular attention to home life, parental supervision, troubled family members and siblings, and home overcrowding, as well as neighborhood factors such as the absence of playgrounds, poor-quality schools, and overall neighborhood blight. With its focus on these family and community factors, the authors provide an ecological perspective on the root causes of delinquency.

Posing a challenge to the ecological perspective, the medical model composes another main historical thread for understanding the etiology of juvenile delinquency. The medical model assumes that deviant thinking and antisocial activity stem from an inherited defect of character. In the early years of the juvenile justice system and in the wake of the popular European and American eugenics movements, prominent medical professionals sought to locate a biological basis for delinquency, conducting studies of intelligence, personality, and other traits that they believed to account for antisocial activity in young people. Most notorious among these physicians was William Healy of Chicago, who founded the Juvenile Psychopathic Institute of Chicago. Paralleling European researchers, Healy examined physical factors, such as body size measurements, birth weight, and other components of youths' medical histories in order to locate a genetic basis of delinquency. Not finding these endeavors to be fruitful, Healy later turned to other aspects of individuals, conducting tests on intelligence and personality (Richardson 1989).

The fledgling medical model eventually departed from its quest to locate a genetic basis of delinquency and became more aligned with advances in psychiatry and, later, psychology. A resulting treatment model for individuals, paralleling a view of adult criminals, considered juvenile delinquency

to be symptomatic of deeper individual problems and internal conflicts that would become progressively worse if left untreated (Shoemaker 2009). Accordingly, insight-oriented therapies emerged as the dominant strategy to treat youth who were placed on probation or in the care of the juvenile corrections system. In practice, this meant that work with juvenile probationers became focused on presumably malleable defects of individual psychological composition rather than inherited, or potentially unalterable, biological traits (Krisberg and Austin 1993).

While the ecological perspective has dominated the social science paradigm on juvenile delinquency, the medical model arguably has played a more influential role in shaping practices within the juvenile justice system, and in particular, approaches to the rehabilitation of the youth within its care (Krisberg and Austin 1993). In the science of curing delinquency, an array of interventions—from those that are psychodynamic to those that are strictly behavioral—have been tested and tried, but most have remained at the individual level rather than focusing on the family, the neighborhood, or the surrounding environment (Abrams and Snyder 2010). As this article will later discuss, the twenty-first-century language of juvenile justice reform fits neatly into this historical thread of medical discourse.

DIVERSION

Another major historical dispute within the juvenile justice system involves diversion programs, practices that attempt to steer youth away from the juvenile justice system altogether. Diversion programs are based on the assumption that involvement in the juvenile justice system may do more harm than good because treating and hence labeling young people as criminals will likely make them behave as such. Although diversion was not an entirely novel idea within the philosophy or practices of the juvenile justice system, the idea gained traction in the 1960s and early 1970s, a time period that witnessed rising delinquency rates, a movement toward deinstitutionalization of mental health patients and other institutionalized populations, and national attention to civil rights issues, including those of children (Zimring 2000). A refashioned examination of children's rights contributed to key Supreme Court decisions that invoked minors' due process rights in juvenile delinquency proceedings (e.g., *In re Gault*, 387 U.S. 1 [1967]; *In re Winship*, 397 U.S. 358 [1970]). Removing the risk of arbitrary judicial discretion, these decisions granted accused minors entitlement to legal

protections, such as the rights to receive notice of the charges, to obtain counsel, to confrontation and cross-examination, and to exercise the privilege against self-incrimination.

The implementation of diversion programs was one component of this renewed emphasis on children's rights. Finding that the juvenile justice system largely failed to rehabilitate the youth in its care, the President's Commission on Law Enforcement and the Administration of Justice (1967) called for the implementation of youth services bureaus in local communities. These bureaus launched a host of programs geared toward diverting youth, particularly lower-level and first-time offenders, away from the juvenile court and into community-based programs (Krisberg and Austin 1993). Moreover, the landmark Juvenile Justice and Delinquency Prevention Act of 1974 promoted both deinstitutionalization and diversion, particularly for lower-level offenders. Among other provisions, this act mandated that status offenders be excluded from sentences leading to institutionalization and made even more funds available for community-based programs (Raley 1995).

Although diversion programs appealed to the common political sentiments of the era, controversy soon arose about their value. Using social scientific evidence and meta-analysis techniques, critics charged these well-funded programs with a great deal of ambiguity, both in the very definition of diversion as well as in the target population. For example, criminologist Malcolm Klein's (1979) review of 200 articles and reports finds the major diversion programs to lack comprehensive evaluation, to have unclear and inconsistent rationale for client selection, and to be uncertain of what diversion from the system truly means. His review suggests that most diversion programs reached many who were not headed for the deeper ends of the justice system to begin with (e.g., status offenders or voluntary clients), thus becoming prevention rather than actual diversion programs (Klein 1979). He also argues that diversion programs did not avert labeling youth as delinquent or criminal but, on the contrary, widened the net of those who came into contact with the justice system. Scholars attributed this problem to the facts that diversion programs often took voluntary clients and that youth who may not have received any court sanctions at all were monitored more closely for compliance with the diversion requirements than they would have otherwise been (Blomberg 1983).

Klein's viewpoint raised a degree of controversy about diversion programs, particularly surrounding the programs that Klein reviewed, which

his critics claimed had not yet been well evaluated or had time to evolve fully (Klein 1979). However, his opinion was at least partially validated when, a decade later, John Whitehead and Steven Lab's (1989) meta-analysis of 50 experimentally researched diversion programs showed minimal evidence of effectiveness and that in some programs, system-diverted youth had higher recidivism rates than those who did not participate in the diversion program. Moreover, another meta-analysis of 44 juvenile diversion studies at the time found that a majority of the reportedly diverted youth were actually involved in the court system, contrary to the main goal of avoiding labeling (Gensheimer et al. 1986). In these debates, social science, in the form of experimental methods, systematic review, and meta-analysis, played a prominent role. Without evidence of effectiveness, diversion programs gradually lost favor in and funding from the government, and gradual dissatisfaction with diversion as an effective model of juvenile justice practice paved the way for various punitive and institutional approaches to take root.

REHABILITATION

Throughout the past century of paradigm shifts in juvenile justice, attention to rehabilitation has existed uneasily alongside the goal of punishment. This balancing act has vacillated widely according to prevailing theory, science, and political climate, as has the interpretation and implementation of rehabilitation, which has ranged from allowing judges to remove youth from their homes for long periods of time to offering juvenile probationers the opportunity to give back to the community through activities such as community service. For youth sentenced to out-of-home placement, interventions have ranged from family-style dormitories with a focus on moral guidance, such as those initiated even prior to the Progressive Era (Platt 1969; Brenzel 1975), to institutions resembling army or wilderness boot camps (Greenwood 2005).

The most dramatic swing toward the punitive end of this spectrum occurred in the 1980s in tandem with America's declared war on drugs, during which time there was heightened public panic over violence, crime, drugs, and gangs. Part of this fear was fueled by an actual increase in juvenile and adult violent crime rates, as well as the burgeoning epidemic of street drugs, such as crack cocaine (Krisberg and Austin 1993). In the 1980s, President Ronald Regan ramped up America's war on drugs through both

international and domestic law enforcement efforts. Most relevant to this discussion was the initiation of stringent federal and state sentencing reforms for the possession and sale of illicit drugs. These sentencing reforms were largely responsible for the tripling of the national prison population between 1987 and 2007, which disproportionately affected African American men (Pew Center on the States 2008).

Although both adult and juvenile violent crime rates also increased in the 1980s, statisticians and the media paid disproportionate attention to violent crime among youth. Political scientist John Delilio (1995) helped fuel the public fear of the younger generation by coining the term “superpredators” to describe urban young men who were morally vacant and lacking “impulse control or empathy” (23). The public sentiment against urban young men was reinforced by extremely negative media portrayals of youth gang culture. With the growing pressure to crack down on the “superpredators” and a declared war on those who sold drugs and join gangs, federal and state governments enacted a number of policy measures designed to provide harsh sentences for youth offenders that would take them off the streets and deter them from committing crimes.

These efforts focused on easing the process of transferring minors to the adult criminal justice system, a tactic otherwise known as “adult time for adult crime” (Deitch et al. 2009, 12). Although the option of transferring juveniles to the adult system has always existed by law, before the 1980s the actual transfer of juveniles to the criminal court was fairly limited (Tanenhaus 2004). During the 1980s and 1990s, every US state modified its juvenile statutes to make it easier to transfer juveniles to criminal court. These policy reforms lowered the minimum age at which a juvenile could be treated as an adult, expanded the offenses for which a juvenile could be treated as an adult, required that more attention be paid to the offense rather than the other characteristics of the juvenile, and shifted power from judges to prosecutors to make the decision regarding whether a juvenile should be tried as an adult (Scott and Steinberg 2008b). Whereas judges had traditionally decided whether to transfer a juvenile to adult court, a major component of these legislative changes either excluded categories of youth, often based on age and offense, from the juvenile court (statutory exclusion) or provided concurrent jurisdiction to both the juvenile justice and criminal justice systems and allowed the prosecutor to decide where to file the case (prosecutorial discretion). These provisions were enacted under the rationale that judges often blocked the transfer of

juveniles to adult court. Although only a small number of states had used these provisions prior to the 1980s, by the year 2000, 28 states passed statutory exclusion provisions and 15 had prosecutorial discretion provisions. Moreover, 34 US states passed laws dictating that once a youth had been waived to an adult court, any subsequent cases for that individual would automatically be transferred to the adult system (Sickmund 2003).

Other policy changes during this time period allowed the juvenile justice system to more closely resemble the adult criminal justice system. For example, some states permitted opening juvenile proceedings and records to the public (Scott and Steinberg 2008a). While historically the juvenile court had sought to keep proceedings closed and records sealed in order to protect the privacy of juveniles, the opening of proceedings and records represented a shift in the public view toward the precedence of public safety considerations over the protection of young people (Krisberg and Austin 1993). Juvenile detention and correctional facilities also gradually began to resemble the more punitive, rank-and-file orientation of adult jails and prisons (Krisberg 2006). Although the harsh conditions and punitive aspect of juvenile facilities were not novel, the more overwhelming emphasis on punishment in juvenile facilities represented a dramatic shift from the historical tenor of morally-focused reformatories.

Currently, the uneasy coupling of punitive and rehabilitative aspects of the juvenile justice system is seen most acutely in youth correctional institutions, which often try to blend aspects of residential group homes with the rank and file mentality, physical structure, and punitive orientation of adult penal facilities. Many scholars find that the tensions arising between these goals compromise the opportunity for youth to authentically engage in treatment programs (Abrams and Anderson-Natthe 2012; Cox 2012), as well as complicate the ability of probation officers to carry out their own functions as both law enforcement officers and supportive counselors (Inderbitzen 2007). Nevertheless, the institutions that confine youth offenders are still bound by these conflicting goals, leading some to question whether youth can truly be rehabilitated under the current structure (Abrams and Anderson-Natthe 2012).

THE CURRENT CROSSROADS IN JUVENILE JUSTICE

After more than a century of juvenile justice policy and practice, there are no clear-cut answers to the age-old questions surrounding the causes and

remedies for juvenile delinquency. However, mounting evidence of systems failures has renewed the call for a model of juvenile justice that hearkens back to the one that the system's matriarchs originally envisioned. Since the turn of the twenty-first century, children's advocacy groups, professional organizations, and liberal activists have made great strides toward reinstituting a system of justice that is separate from that of adults. They endeavor to keep the majority of young offenders diverted from the deeper ends of the system, to challenge racial injustices and other forms of discrimination within the system, and to provide comprehensive and high-quality care for young people whose crimes warrant more intensive intervention.

Much of the call for reform is fueled not only by a basic humanitarian concern for children's rights but also by the recent fiscal crisis. The war on drugs and the ensuing growth of the prison population in the 1980s and 1990s resulted in an unsustainable economic drain on public funds. Fiscal conservatives and bipartisan coalitions have joined the call for a reduction in the use of incarceration. A number of advocacy groups and policy organizations have argued that lower-level offenders, and juveniles in particular, should be served by community-based alternatives to detention or incarceration that make better financial sense (DeFoor 2009; Levin 2010). Recent closures of large state juvenile correctional facilities in states such as Illinois, California, Texas, and New York reflect the growing sentiment among policy makers and the general public that the need to reduce spending necessitates major criminal justice reforms (Justice Policy Institute 2009; Public Opinion Strategies and Mellman Group 2012).

Currently the number of youth in the correctional system is at a 35-year low, likely due to a blend of policy shifts, facility closures, and historically low juvenile crime rates (Annie E. Casey Foundation 2013). Among all minors who have contact with the juvenile justice system, the vast majority of cases are ordered to probation sentence or are diverted from the system altogether. For example, in 2009, the US juvenile court processed 1,504,144 cases. For those convicted, 8.9 percent were given out-of-home placement (correctional facilities or group homes), and the remainder were either placed on probation (36 percent), released (32.3 percent), waived (.5 percent), or other (22.3 percent)—meaning orders to community restitution, services, or other diversion alternatives (Sickmund, Sladky, and Kang 2013).

Diversion programs are still subject to criticism with respect to program effectiveness and consistency. For example, programs can range widely with regard to when the diversion phase begins and whether or not the

case even arrives at a formal processing stage. Moreover, the effectiveness of a given diversion program rests on its ability to assess the problems that a given youth may be experiencing and then to provide or coordinate the appropriate services for these needs outside of the formal processing of the juvenile justice system. Yet the absence of a standard implementation format, target population, or intervention strategy makes diversion programs very difficult to measure and assess (Hamilton et al. 2007). Some scholars argue that high-quality diversion programs applied to the right population of youth can indeed prevent future delinquency (Greenwood 2008). However, the most recent meta-analysis finds that the type of diversion program makes little difference in relation to known individual risk factors for reoffending, such as race and gender (Sullivan and LaTessa 2011). Moreover, Mark Lipsey (2009) also finds that, after controlling for other risk factors, the level of supervision assigned to juvenile offenders (i.e., diversion or probation services) makes no difference in recidivism risk. Hence, the efficacy of diversion programs and standard probation services in reducing future criminal justice involvement still rests in a gray area.

For the relatively small population of young people who are incarcerated, the failures of the juvenile justice system are very clearly documented. Juvenile incarceration costs on average nearly six times the amount for adult incarceration (Pew Center on the States 2008), yet research consistently finds that the majority of young people who spend time in correctional facilities will experience new arrests, convictions, or stints of incarceration in the juvenile system or enter the adult penal system within a few years of their release. While few states track long-term recidivism rates, the available evidence is troubling. For example, a longitudinal study of nearly 2,500 juvenile offenders who served time in a juvenile correctional facility in the state of Texas finds rearrest rates as high as 85 percent over a 5-year period (Trulson et al. 2005). Similarly the California Department of Corrections and Rehabilitation (2010) finds that 82 percent of youth paroled from its state institutions in 2006 were rearrested within 3 years of release. Examining rates of new convictions is a more conservative recidivism measure, since many arrests do not result in substantiated convictions. Using reconviction data, eight states (Arkansas, Florida, Georgia, Kentucky, Maryland, North Dakota, Oklahoma, and Virginia) report an average 12-month recidivism rate of 33 percent among formerly incarcerated youth, accounting for both juvenile and adult system dispositions (Snyder and Sickmund 2006). These available figures, however, are not

current and do not include the four states with the largest juvenile justice systems: California, Texas, Florida, and New York.

Even though available recidivism rates are outdated and inconsistent, advocates, in response to what is perceived to be high costs and poor outcomes associated with this system, argue that juvenile justice policies and practices have strayed so far from their original mission of rehabilitation that these institutions end up doing more harm than good. Several public cases involving gross abuse and misuse of the system have rallied increasing public support for this perspective. For example, in response to evidence of excessive force by staff, New York State Governor David Patterson appointed a task force of experts to conduct a thorough review of state-run juvenile correctional facilities. The report documents an absence of adequate mental health, health, or appropriate educational services, and it concludes that youth are unjustly subject to violence, substandard living conditions, and harsh practices such as shackling and restraints (Vera Institute of Justice 2009). The case of New York State is not isolated, as scores of investigations of state- and county-run juvenile detention and correctional facilities report similar findings. The list of lawsuits resulting from these investigations is quite extensive, and settlements are costly. In response, advocates are pushing to close these large facilities and to invest in less expensive, community-based alternatives such as counseling, work, and restorative justice programs that aim to keep more youth in their communities (Mendel 2011).

Lending further weight to the argument for major reform, research suggests that trying and sentencing youth as adults produces a plethora of negative outcomes (Scott and Steinberg 2008a). In regard to public safety, empirical studies find that youth who are transferred to the adult system are more likely to commit further and more serious crimes than equivalent groups of offenders who remain under juvenile court jurisdiction (Bishop et al. 1996; Fagan 1996; Redding 2003). Moreover, research has suggested that young people are needlessly harmed by their experiences in adult jails and prisons as they are highly susceptible to abuse, rape, and violent victimization by older inmates and correctional staff (Forst, Fagan, and Vivona 1989; Ziedenberg and Schiraldi 1997; Deitch et al. 2009).

In sum, there is robust evidence of multiple problems permeating the contemporary juvenile justice system. From inadequacies involved in determining who will most benefit from diversion and community-based programs to abuses occurring in costly and ineffective correctional facilities,

the juvenile justice system has become a focal point of concern among critics from all sides of the political spectrum, particularly from a children's advocacy perspective. In the call for a return to a sensible and effective system of juvenile justice, science is once again invoked in arguments for system reform.

CONTEMPORARY DISCOURSES: NEUROSCIENCE AND EVIDENCE-BASED PRACTICES

Children's advocates increasingly rely on emerging research on cognitive reasoning and brain development to validate their call for a return to a system of justice that meets the unique physiological, emotional, and developmental needs of young people. In the latter part of the 1990s, the John D. and Catherine T. MacArthur Foundation sponsored a series of studies concerning the age of cognitive maturity. Countering the prevailing belief that brain development is effectively completed by age 16, these studies suggest that higher-order cognitive functions, such as reasoning, impulse control, and the ability to resist peer pressure, continue to develop well past the age of 16 and into adulthood (Grisso et al. 2003; MacArthur Foundation Research Network on Adolescent Development and Juvenile Justice 2006). Advocates have used this research to provide a more concrete scientific basis (as opposed to a purely humanitarian one) and to argue that young people are deserving of a separate system of justice.

In tandem with this research on cognitive development, a series of brain-imaging studies find that components of younger brains are both structurally and functionally different than those of older brains (Giedd et al. 1999; Sowell et al. 2001; Gogtay et al. 2004). According to this research, the brain continues to develop throughout adolescence and into early adulthood, particularly in the prefrontal cortex, which is located in the frontal lobe and is associated with control of executive functions. These executive functions refer to higher-order cognitive processes that include motivation, inhibition, logical decision making, problem-solving, planning, emotional regulation, working memory, sexual urges, prioritization, and anticipation of consequences (Sowell et al. 2001). Advocacy groups use these findings to argue that younger people are biologically predisposed to impulsivity, unreasoned judgments, and susceptibility to peer influence (MacArthur Foundation Research Network on Adolescent Development and Juvenile Justice 2006; Back 2008). Prominent professional associations,

such as the American Medical Association, the American Association of Child and Adolescent Psychiatry, the American Psychological Association, and the American Psychiatric Society, have endorsed this nascent science, leading these arguments to gain traction in the legislative and public policy arenas, including cases involving the constitutionality of life without parole and death sentences for minors and in revisions to state transfer and waiver laws.

On the federal level, the discourse surrounding the structure and function of the adolescent brain has served as a strong basis for three recent Supreme Court decisions regarding the extent of constitutionally acceptable punishments for minors. While these cases deal with the very small numbers of youth who are at the extreme end of the criminal justice system, they serve as rationale for state-level reforms affecting many more young people. The first decision, *Roper v. Simmons* (543 U.S. 551 [2005]) addresses the question of whether sentencing someone who committed an offense under the age of 18 to death was a violation of the Eighth Amendment's prohibition on cruel and unusual punishment. After noting an evolving societal consensus against the sentence, the majority decision, written by Justice Anthony Kennedy, turned to other evidence to help guide the Court's decision. For the most part, this evidence consisted of research on adolescent development and maturity, and this served as the basis for the Court's conclusion that juveniles are categorically less culpable than adults and therefore not deserving of the death penalty. Furthermore, the Court used this evidence to argue that the character of juveniles is not fixed in adolescence and that they have substantial potential for change (*Roper v. Simmons*).

The *Roper v. Simmons* decision is important because it provided an unequivocal statement by the Court that juveniles are categorically different than adults. Yet the direct effect of the decision was limited because death sentences for juveniles were rare, and only 73 juveniles were on death row at the time of the decision (Streib 2005). In fact, language in the majority opinion indicated some support for a life sentence without the opportunity for parole for juvenile offenders; appeals filed by juveniles with regard to life without parole and other sentences were still generally dismissed because courts determined that *Roper* did not apply. Consequently, it was unclear whether the *Roper* decision, outside of the Court's statement of differences between juveniles and adults, would have much effect outside of the context of the death penalty. The Supreme Court, however, addressed

this issue in 2009, when it decided to hear two cases challenging life without parole sentences for juvenile offenders. These cases, *Graham v. Florida* (130 U.S. 357 [2009]) and *Sullivan v. Florida* (130 U.S. 2059 [2010]) dealt with the question of whether it was a violation of the Eighth Amendment to sentence a juvenile to a life without the opportunity for a parole decision for a nonhomicide offense.

Declining to rule on the *Sullivan v. Florida* case because of procedural issues, the Court held in *Graham v. Florida* that it was indeed cruel and unusual punishment to sentence a juvenile to life without the opportunity for parole for a nonhomicide offense. Like in *Roper v. Simmons*, the evolving standards of decency test applied by the Court exhibited, in the view of the majority, a societal consensus against this sentencing practice. The majority decision also considered other evidence in making its determination, largely adolescent and brain development research. Written by Justice Kennedy, the majority decision concluded that the evidence regarding differences between juveniles and adults, especially the evidence pertaining to brain development, had become even stronger since the *Roper* decision.

In 2012, the Supreme Court decided on two additional cases on life without parole sentences for juvenile offenders. The justices' ruling in *Miller v. Alabama* (132 U.S. 2455 [2012]) extends beyond *Graham v. Florida*; in a 5–4 vote, they decided that mandatory life sentences for juveniles convicted of murder are unconstitutional based on the Eighth Amendment restriction on cruel and unusual punishment. The basis of these cases, as evidenced by oral arguments and briefs, also strongly featured neuroscience, particularly the notion that youth are not fully formed in their reasoning or judgment. In the majority opinion, Justice Kagan wrote: "Mandatory life without parole for a juvenile precludes consideration of his chronological age and its hallmark features—among them, immaturity, impetuosity, and failure to appreciate risks and consequences" (*Miller v. Alabama*; Kagan, majority opinion). Although the Court also based its conclusions on other arguments, including international law and considerations of human rights, the tremendous influence of the fields of neuroscience and developmental psychology in developing this standard is clear.

THE ROLE OF SCIENCE IN LAW, POLICY, AND ADVOCACY

This series of Supreme Court decisions directly affects a very small number of young people who were tried and sentenced to life without the

possibility of parole in the adult system. However, the Court's endorsement of the arguments pertaining to the juvenile brain also provided much needed leverage for advocates. In particular, the rulings in *Graham v. Florida* and *Miller v. Alabama* offer a persuasive discourse to make the case for broader system reforms that provide all youth, including those tried in criminal court, the right to rehabilitation (Arya 2010). From 2005 to 2010, advocates successfully modified transfer or waiver statutes in 15 US states, and these efforts are continuing in reforms that increase the age of automatic transfer to criminal court and remove prosecutorial discretion (Arya 2011). Juvenile justice advocates are also drawing on the power of these rulings to provide practical training for reform advocates (National Juvenile Justice Network 2012) and arguments for criminal defense attorneys in cases dealing with juveniles who are tried as adults (Jennings 2010).

Despite the seemingly widespread public and professional endorsement of the adolescent brain argument, sound critiques of this perspective are also present. Some researchers and legal analysts suggest that this imaging research, using small and likely unrepresentative samples, is far too new to use as a basis for any legal or public policy decisions, particularly as the amicus briefs that cite this science are not peer reviewed or subject to high scientific standards (Bower 2004; Aronson 2007). Others question the potentially unanticipated or paradoxical social consequences of brain research for juvenile justice policy. For example, the argument that young people are biologically less developed than adults introduces major questions about the nature of juvenile justice itself (Rosen 2007; Cox 2009). In other words, could this research be used to argue that youth are inherently less capable than adults of making good decisions because of these developmental deficits and cognitive immaturities? If so, might the public be even more concerned that youth present ominous public safety risks (National Juvenile Justice Network 2012)?

An additional set of concerns among critics and scholars regarding the discourse surrounding the adolescent brain is an underlying uneasiness with biodeterminism. While noting that brain research can and has been used to launch a credible advocacy position on behalf of youth involved in the juvenile justice system, some caution against the essentialist argument that these differences in structure constitute universal biological deficiencies (Paus 2005; Males 2009, 2010; Sercombe 2010). In casting adolescents as universally underdeveloped in executive function because of age, this

discourse does not account for the majority of youth who make smart and rational decisions even under peer influence or other pressures. The notion that young people's immature and impulsive behavior can be ascribed to biological deficiencies indeed bears resemblance to the medical model's historical focus on the link between crime and faulty genetics—an attribution of innate deficiency that has been used against young people, and young people of color in particular, in the criminal justice system (Males 2009, 2010). Legal scholar Jay Aronson (2009) speaks to the uneasy relationship between biological science and criminal law, stating: "We must not submit to a new kind of biological determinism which posits that behavior is merely the 'calculable [consequence] of an immense assembly of neurons firing'" (924). Hence, while neuroscience has exerted great influence on recent law and policy, the use of this nascent research should continue to be examined with ethical caution.

EVIDENCE-BASED PRACTICES

The movement to adopt evidenced-based practices in probation and correctional settings is another major trend in current juvenile justice reforms. Paralleling developments in the health sciences, the past 2 decades have ushered in a wealth of knowledge and information about a particular set of practices that strive to lower the recidivism rate and improve treatment outcomes with juvenile-justice-involved youth. These evidence-based practices (EBP) rest on the assumption that empirically definable and testable interventions, when applied with fidelity, can reduce thinking patterns and behaviors associated with criminal offending and ultimately reduce the risk of repeat offending. Given the bleak results of juvenile diversion and intervention strategies and the high costs associated with these programs, there is plenty of pressure among policy makers to figure out the types of programs and strategies that will produce measurable and tangible results. Indeed, current criminal justice policy is often based on the premise of advances in social science. For example, a brief from the Center for Evidence-Based Corrections states: "The current research on offender rehabilitation and behavioral change is now sufficient to enable corrections to make meaningful inferences regarding what works in our field to reduce recidivism and improve public safety" (Guevara and Solomon 2009, 2).

Evidence-based correctional practices in juvenile justice settings have several major goals, including (1) to tailor interventions to the risks of the

individual (with lower-risk individuals receiving minimal intervention); (2) to enhance intrinsic motivation to change on the part of the offender; (3) to intervene with a cognitive-behavioral technique that addresses criminogenic needs, such as criminal personality; antisocial attitudes, values, and beliefs; low self control; criminal peers; substance abuse; and dysfunctional family; (4) to strengthen ties for continued results in the community; and (5) to operationalize and measure results (adapted from Guevara and Solomon 2009). Certain strategies have emerged among practitioners for enacting these interventions, such as Motivational Interviewing (Miller and Rollnick 2002), Multi-systemic Therapy (Hennegler 1997), and other manualized treatment programs. Researchers have established many of these methods as evidence-based through repeated randomized clinical trials. Yet, compared to the time spent evaluating these interventions, relatively little work has been done to assess how well these strategies are implemented in law enforcement operations and actual practices (LaTessa 2004).

The language of evidence-based practice exerts a major influence over current policies, funding streams, and practices in juvenile probation systems and corrections. This emphasis is explicit in expert recommendations on systems reform (Guevara and Solomon 2009) and, following suit, states and counties are under increased scrutiny to show that their programs conform to evidence-based standards. Although substitute words are often used, such as “best practices,” “proven practices,” and “evidence-informed practices,” funders and policy makers hail these interventions as the highest standard of innovation and most effective use of shrinking funding for juvenile justice programs. Subsequently, science is moving the field away from standard probation services or more untested interventions (e.g., art therapy or vocational rehabilitation programs) and toward branded therapies. This is particularly the case for youth who have moved further into the juvenile justice system, where programs are under increased pressure to reduce costs and recidivism rates. The official position from the Youth Transition Funder’s Group, a group of foundations interested in juvenile justice explicitly, states: “Three evidence-based programs are scientifically proven to prevent crime, even among youth with the highest risk of re-offending. Functional Family Therapy, Multidimensional Treatment Foster Care (MTFC) and Multi-systemic Therapy (MST) all focus on the family. None involve incarceration. All deliver results. These models are spreading

and now serve more than 400,000 youth a year. The studies provide a strong scientific base to show what works” (Peterson 2012, 8–9).

With an explicit emphasis on outcomes, evidence, and measurable standards, evidence-based practices can be viewed as the modern scientific paradigm for juvenile justice: a quest to identify the most efficacious ways to cure youth who fall into the system’s purview. However, not all experts are sold on the evidence-based model. Jeffrey Butts (2008) cautions against the assumption that most youth charged with crimes are in need of highly specialized therapeutic intervention. Rather Butts reasons that the majority of delinquent youth are likely to benefit from the same types of programs that help all youth thrive, which are related to education, healthy adult relationships, and opportunities for prosocial leisure and development, such as sports and recreation. This Positive Youth Development framework (PYD) recognizes that even with additional needs for mental health or substance abuse programs, the majority of youth within the juvenile justice system can be assisted by programs that build on their strengths. These ideas are not entirely inconsistent with EBPs, and in fact some of the PYD programs are noted as evidence-based (Butts, Bazemore, and Meroe 2010). The main difference between them is that PYD emphasizes programs that provide opportunities for youth development, versus those seeking to apply therapeutic principles to remedy a deficiency.

Others question the true science of evidence-based practices in juvenile justice settings; there is an array of unpublished research that tends to include more null or negative results. In a systematic review of the literature on MST, a highly favored intervention in juvenile justice, Julia Littell (2005) finds the effect size of this intervention to be much smaller than authors typically purport, and she even questions whether the financial drive to sell and package correctional interventions may outweigh the science of fairly reporting all available findings. This controversy was published as a conversation in a series of articles between Littell (2005, 2006) and the major MST researchers (Henggeler, Schoenwald, and Swenson 2006). The researchers raised some important questions about blanket acceptance of evidence-based correctional practices, including the problem of unpublished results, the applicability of most evidence-based interventions to culturally diverse populations, and the importance of the organizational and interpersonal context in which these interventions are delivered. Hence there is ample room to question how well the science of evidence-based

corrections translates into real-world practices and whether funding streams are truly aligned with more rigorous reviews of available evidence (Furman 2009).

THE SOCIAL WORK ROLE IN JUVENILE JUSTICE REFORM

Social workers and social reformers were intimately involved in founding the juvenile justice system and, for many years, they had a major stake in shaping the major policies and practices associated with juvenile courts and reformatories (Platt 1969). Over time, the profession retreated from its investment and involvement in juvenile justice and criminal justice more broadly, representing just 2 percent of career choices among social workers (Gibelman 2004). According to Clark Peters (2011), the most prominent explanation for this downward trend is that social workers have retreated from working in the coercive and involuntary environment of the prison system, in which a therapeutic relationship is difficult to sustain. Peters (2011) also proposes alternative explanations for the gradual erosion of social work influence, including the predominance of male probation officers and male clients of the juvenile justice system compared to a primarily female social work workforce, along with the deprofessionalization of the probation officer role.

For any number of these reasons, social work no longer holds a seat at the decision-making table in juvenile justice. Yet, based on the current cross-roads in juvenile justice reform, for several reasons, this author argues that the time is ripe for social work to reenter this conversation. First, as neuroscience plays an increasing and powerful role in arguments for juvenile justice reform, it is important that an ecological discourse remain present. Social workers launched the juvenile justice system with an ecological viewpoint that gradually gave way to a medical model, of which the emphasis on neuroscience is the most recent facet. Granting that this strand of research on the brain may be important, interesting, and even helpful for young people, research still consistently finds evidence of ecological correlates of delinquency such as family, school, and neighborhood factors (Heilbrun et al. 2000; Harris et al. 2011). The ecological model lends itself to key prevention alternatives, such as strengthening families, schools, and neighborhoods, and it recognizes that engaging multiple systems is needed to address complex problems (Peters 2011). Reducing arguments for juvenile justice reform to a biological basis eclipses what social workers have

espoused and practiced for generations about the importance of modifying environments so that healthy behavior among young people can be encouraged.

Moreover, arguments regarding the immaturity of the juvenile brain tend to universalize the condition of delinquency by attributing it to impulse control, faulty judgment, and susceptibility to peer influence. Yet not all young people are systemically subject to punishment, as major disparities based on race and class continue to permeate the juvenile justice system. Overwhelmingly, the juvenile justice system deals with young people who are poor, from single-parent families, and disproportionately from ethnic minority groups, particularly African Americans (Mendel 2011; Sickmund et al. 2013). These racial disparities are apparent at all stages of the juvenile and criminal justice system, from arrests through parole decisions. There is a risk that an appeal to the public to have empathy for youth based on the structure and function of the teenage brain may eclipse a much-needed critical argument for systems reform based on these persistent racial disparities and other injustices, such as the aforementioned abuses and substandard conditions found within the system itself.

Finally, as evidence-based practices gain traction in the rationale for and implementation of juvenile justice reform, some critical issues remain. Social workers should continue to challenge the profit motive behind EBPs and to consider whether or not they have actually been tested on the populations most represented within the juvenile justice system, particularly young African American men. As the contexts and the case mix of youth will continue to change due to policy change and fiscal crisis, our responsibility as social workers will be to understand better what elements of interventions are effective in which settings and to monitor these interventions over time.

Moreover, social workers should question whether law enforcement officers are better equipped than other professional groups to deliver mental health and therapeutic interventions to the juvenile justice population. Probation officers are mostly trained in law enforcement, not therapy. In facilities where law enforcement personnel play dual roles as therapists and rule enforcers, researchers are discovering a wide range of complexity in these roles and in the relationships that are forged between workers and clients (Inderbitzen 2007; Abrams and Anderson-Nathe 2012). The issues involved in such interventions are all taught in social work education: group work, involuntary clients, involving family members in the treatment pro-

cess, and strengthening systems for sustained change. Therefore, the youth and families who are served in various ways by the juvenile justice system, and the interventions delivered to them, can benefit greatly from social workers' training and expertise.

CONCLUSION

The juvenile justice system has long struggled with paradigms and practices for understanding, preventing, and intervening in delinquency. Medical and social sciences have consistently been used as evidence in debates concerning why youth become delinquent, how to divert them from the system, and how best to rehabilitate them once they become involved. However, the answers to most of these fundamental questions remain unresolved, and the juvenile justice system is poised for another wave of potentially large-scale change.

Scientific advances hold a prominent role in the current advocacy movement to restore the integrity and the fundamental mission of a separate juvenile justice system. While the protectionist discourse that neuroscience invokes concerning the developmental uniqueness of adolescence has merit theoretically, at a more practical level, there are questions regarding how this relatively new science can and should be translated into actual legal, policy, and practice prescriptions. Arguing that juveniles are different from adults based on the structure and function of the brain is one matter; determining how that translates into law and practice is a separate question that involves both social and ethical consideration. Given what is at stake for the future of this troubled system, social workers should exercise their voices in these important questions. Specifically, social workers can work with children's advocacy groups to ensure that this research is not used to pathologize youth offenders, particularly in the event that the current fiscal crisis, which has prompted an effort to reduce incarceration, abates or if violent crime rates increase. There is ample historical evidence to indicate that policy makers and practitioners alike should be wary of biodeterministic arguments regarding criminal behavior, and social workers are well aware of the social and human costs associated with this view. As such, social workers should continue to voice publicly an ecological view that prioritizes modifying the risky environments that give rise to delinquency and challenges the racial disparities within the system.

Moreover, as evidence-based practices will likely continue to be infused in the juvenile justice system, it is fitting that social workers assume leadership in the implementation and continued research on these interventions. The large number of youth and families who interact with the juvenile justice system can benefit from an increased social work presence. Yet currently only 26 of the 236 (11 percent) accredited MSW programs listed on the Council on Social Work Education (CSWE) website offer a specialization in criminal justice. This type of more specific training must be increased in order to expand the presence of social workers inside probation and correctional systems and to develop a larger presence in policy reform. While there is much uncertainty about the extent to which social workers will involve themselves in this reform movement, the range of ethical, legal, and practical issues that are currently on the table are likely to influence policy and practices in juvenile justice for decades to follow. This seems to be reason enough for social workers to play a leadership role in shaping the future of this troubled system, looking toward a model of justice that respects both the biological and ecological determinants of juvenile offending, the capacity of young people for rehabilitation, and the knowledge that a variety of interventions, ranging prevention to intervention, must be considered when working with delinquent youth and their families.

NOTE

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The Supplemental Nutrition Assistance Program and Material Hardships among Low-Income Households with Children

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ABSTRACT This study estimates the effects of participation in the Supplemental Nutrition Assistance Program (SNAP) on the risk of food as well as nonfood material hardships experienced by low-income households with children. Data are drawn from the 1996, 2001, and 2004 panels of the Survey of Income and Program Participation (SIPP). We examine the relationship between SNAP and material hardships by modeling jointly the likelihood of household participation in SNAP and the risk of experiencing material hardships using a bivariate probit model. We estimate that SNAP reduces household food insecurity by 12.8 percentage points, reduces the risk that households will fall behind on their nonfood essential expenses, including housing (by 7.2 percentage points) and utilities (by 15.3 percentage points), and reduces the risk of medical hardship (by 8.5 percentage points).

This study estimates the effects of participation in the Supplemental Nutrition Assistance Program (SNAP, formerly the Food Stamp Program) on the food and nonfood material hardships of low-income households with children. A primary goal of SNAP is to reduce food insecurity among recipients, and recent studies find that SNAP achieves this goal (Mykerezzi and Mills 2010; Ratcliffe, McKernan, and Zhang 2011). Beyond food insecurity, however, there is little research on how SNAP participation affects nonfood material hardship, even though previous research suggests that fewer than 50 cents out of every dollar of SNAP benefits is, in effect, spent on food consumption. This is possible because many households can reduce

their out-of-pocket food expenditures following SNAP entrance and redirect resources previously spent on food to other things (Fraker 1990; Fox, Hamilton, and Lin 2004). Thus SNAP can indirectly affect nonfood consumption and may therefore reduce the nonfood material hardship of recipient households.

Estimating the effects of SNAP on both food and nonfood material hardships is made difficult by the fact that participants self-select into the program for reasons that may make them different in important ways from similar nonparticipants, even after controlling for observable characteristics. To deal with this selection issue, we model jointly the likelihood of household participation in SNAP and the risk of experiencing material hardships, using a bivariate probit model and drawing data from the 1996, 2001, and 2004 panels of the Survey of Income and Program Participation (SIPP). Our findings are robust to numerous sensitivity analyses and suggest that SNAP has a sizable effect not just on the food security of households with children but also on their nonfood material well-being.

BACKGROUND

During the 2012 fiscal year, an average of 46.6 million individuals received SNAP benefits each month, and total federal spending on the SNAP program was \$78.4 billion. Food security, a primary outcome used to evaluate SNAP, is defined as “access by all people at all times to enough food for an active, healthy life,” while food insecurity is defined as the absence of food security (Coleman-Jensen et al. 2012, 2). Beyond its direct relationship to food insecurity, SNAP participation may reduce nonfood material hardships by allowing recipients to reallocate resources originally directed toward the purchase of food to other essential expenses, such as those for housing, utilities, and medical care. To our knowledge no existing study uses rigorous econometric methods to estimate the effects of SNAP on nonfood material hardship.

Households that choose to apply for and receive SNAP are likely different from similar, nonparticipating households in important ways that are not readily observable. This self-selection complicates efforts to evaluate the relationship between SNAP receipt and material hardship because it is likely that households experiencing the most serious hardships are also the most likely to apply for benefits. Parke Wilde (2007) and others show that low-income households that receive food stamps are more likely to report

food insecurity than similar nonparticipating households, a counterintuitive finding that is replicated across numerous data sets (see also Gibson-Davis and Foster 2006; Gundersen, Jolliffe, and Tiehen 2009).

Recent studies use more sophisticated techniques in an attempt to address this issue, including instrumental variables approaches, and these find a negative relationship between SNAP participation and food insecurity (Borjas 2004; Bartfeld and Dunifon 2006; Yen et al. 2008; Nord and Golla 2009; Mykerezzi and Mills 2010; Ratcliffe et al. 2011). George Borjas (2004) concludes that the evidence “suggests an important [negative] causal link between public assistance and food insecurity” for immigrants (1439).¹ Steven Yen and colleagues (2008) use the 1996–97 National Food Stamp Program Survey (NFSPS), a small survey of income-eligible households, and they find that SNAP participation is associated with reduced food insecurity.² Caroline Ratcliffe, Signe-Mary McKernan, and Sisi Zhang (2011) pool data from the 1996–2004 SIPP panels and take a bivariate probit approach with instruments, similar to the one we employ here, to estimate the effects of SNAP on food insecurity among low-income households that are potentially eligible for SNAP. Their findings suggest that SNAP participation substantially and statistically significantly decreases the risk of household food insecurity.³ Elton Mykerezzi and Bradford Mills (2010) also estimate that SNAP benefits have a statistically significant negative effect on food insecurity.⁴

1. Borjas (2004) uses state variation in the treatment of immigrants before and after the 1996 welfare reform to estimate the effects of participation in means-tested programs on the food insecurity within this population.

2. Yen and colleagues (2008) exploit variation in external factors that impact the probability of SNAP participation in an effort to account for self-selection into the program. They employ instruments measuring stigma, as well as cross-sectional variation in some state SNAP policies and state-level immigrant population shares. However, their finding that food stamps reduce food insecurity is likely driven by the nonrepresentativeness of the NFSPS sample rather than by their instrumental variables approach (Ohls et al. 1999).

3. Ratcliffe and colleagues (2011) include three instrumental variables that they argue affect SNAP participation but have no independent effect on the risk of food insecurity: changes over time in state SNAP outreach spending per capita, use of biometric requirements (generally fingerprinting of applicants), and a term interacting states' treatment of immigrants with non-citizen immigrant status of household heads.

4. Mykerezzi and Mills (2010) use the state-level shares of participants who received an erroneous overpayment and the state-level share of participants who received an erroneous underpayment of benefits as instruments for SNAP participation.

In contrast to the growing literature on the effects of SNAP benefits on food security, there is a lack of empirical work on the extent to which SNAP affects participant households' nonfood consumption and, in turn, the extent to which SNAP may reduce nonfood hardship. Households can use their SNAP benefits for nonfood spending indirectly by reducing their out-of-pocket food expenditures following SNAP entrance and redirecting resources previously spent on food to other things. In a review of 19 studies, Thomas M. Fraker (1990) finds that the increase in food expenditures from an additional dollar in food stamps (excluding two outlier studies) ranges from 17 cents to 47 cents. Effectively, then, between 83 cents and 53 cents is spent on other things (see also Fox et al. 2004).

More recently, Timothy Beatty and Charlotte Tuttle (2012) find that 31 cents of each additional SNAP dollar given under the American Recovery and Reinvestment Act (ARRA) was spent on food (at home). Finally, Hilary Hoynes and Diane Schanzenbach (2009) use county-level variations in the original date of implementation of the Food Stamps Program (from 1963 to 1975) and data from the Panel Study of Income Dynamics (PSID) and the Decennial Censuses to show that the introduction of the Food Stamp Program led to an overall increase in household food expenditures—meaning that recipient households bought more food than they would have otherwise—but a decrease in recipient households' out-of-pocket food spending. This suggests that recipient households, on average, redirect some money originally spent on food to other expenses.

Taken together, this empirical evidence has two important implications. First, studies show that households spend more on food with SNAP benefits than they would with an equivalent amount of cash. The estimates of the marginal propensity to purchase food with food stamps are 3–10 times higher than the estimated marginal propensity to purchase food with cash (Breunig and Dasgupta 2005).⁵ However, a sizable fraction of SNAP benefits is not used to increase food consumption but rather, indirectly, spent

5. This contradicts standard theoretical predictions in economic models reaching back at least to Herman Southworth's (1945) canonical model. The Southworth (1945) model predicts that SNAP works essentially as an unconditional cash transfer program unless participants are constrained, meaning that their desired food consumption level is less than their SNAP benefit. Evidence from experimental designs (Fraker et al. 1995) and from nationwide consumption surveys (Fraker 1990) indicates that only a small fraction of SNAP participants are constrained. Therefore, for most households, the propensity to purchase food with SNAP benefits should, theoretically, be similar to that with cash income. Researchers offer some

on other expenditures. Thus, a full assessment of the efficacy of SNAP requires the examination of other outcomes.

SNAP serves a heterogeneous population, and the program's estimated effects may be different for the various subgroups, such as individuals, families without children, or the elderly. By focusing on households with children, the largest group of SNAP recipients, we more precisely estimate both participation and program effects than if we studied the full population of SNAP recipient households. We hypothesize that SNAP receipt should increase total household consumption, allowing recipient households to increase food expenditures and to reallocate some out-of-pocket resources previously spent on food to other nonfood essential expenses. As a consequence, SNAP should reduce the risk that a participating household experiences food as well as nonfood hardship.

DATA

Data are drawn from public use files of the SIPP collected by the US Census Bureau. SIPP interviews were conducted every 4 months, with each individual in the household reporting on each intervening month, and these interviews gathered data on demographics, income sources, public assistance program participation, household and family structure, and jobs and work history. We pool data from the 1996, 2001, and 2004 panels of the SIPP, each of which is 3–4 years long.⁶

Recent analyses of a number of large nationally representative surveys that measure income and program participation find that the SIPP generally does a superior job of measuring the income of poor households and capturing public program participation relative to other major, nationally representative household surveys (Czajka and Denmead 2008; Meyer, Mok, and Sullivan 2009). Underreporting of benefits receipt in household surveys (in which respondents do not report public benefits that they have

explanations for this empirical puzzle, including the psychological effects of earmarked benefits, the more secure nature of SNAP benefits in comparison to cash income, and the potential differences of intrahousehold distribution of in-kind welfare income versus cash income (Fox et al. 2004; Breunig and Dasgupta 2005).

6. A few states (Maine, Vermont, Wyoming, North Dakota, and South Dakota) are not uniquely identifiable in the 1996 and 2001 panels, so observations from these states were dropped because they cannot be matched with state SNAP policy data (as is done by Gruber and Simon [2008] and Ratcliffe and colleagues [2011]).

accessed) remains a limitation (Gundersen and Kreider 2008). However, when compared to peer surveys, the SIPP does relatively well in terms of SNAP reporting rates. Bruce Meyer, Wallace Mok, and James Sullivan (2009) estimate that the SIPP reported 87.7 percent of SNAP participants for 1998, 84.8 percent for 2003, and 82.9 percent for 2005, the years in our study frame that include the material hardship measures.

Our sample includes households with resident children under age 18 with at least one adult member over age 18. Rather than try to simulate SNAP eligibility, we follow Mykerezzi and Mills (2010) and Ratcliffe and colleagues (2011) by restricting our sample to households based on low income. Our main sample includes households with an average gross income at or below 150 percent of the federal poverty line (FPL) during the reporting wave (up to 4 reference months), using the monthly household-level poverty thresholds provided in the SIPP.⁷ While other studies attempt to simulate SNAP eligibility, if we were to do this with our sample, a substantial proportion of households reporting SNAP participation would be coded as ineligible. This may relate to limitations in comparing income and assets reported in the SIPP with state eligibility calculations or it may be a result of fluctuating household incomes and assets following initial certification.

However, the most important reason for using a gross income threshold for sample selection rather than simulating SNAP eligibility relates to concerns that income may be endogenous to participation. Households near the eligibility threshold may modify their earnings or assets in ways that make them eligible (Ashenfelter 1983). In order to account for this, we use a threshold of 150 percent of the federal poverty line (rather than SNAP's gross income limit of 130 percent). We test the robustness of our findings to this sample selection with sensitivity analyses.

Our key outcome variables are drawn from the SIPP's adult well-being topical modules, which were administered once per panel in wave 8 of the 1996 panel (during 1998), wave 8 of the 2001 panel (during 2003), and wave 5 of the 2004 panel (during 2005). Scholars are giving increasing credence to measures of material hardship as alternatives to the official poverty line for assessing the well-being of low-income families (Mayer and Jencks

7. Unlike Ratcliffe and colleagues (2011), but like Mykerezzi and Mills (2010), we do not restrict by household assets. Doing so only marginally changes the sample composition and requires merging in assets data collected in other waves, which may not be representative of the household's circumstances when they applied for SNAP or when they completed the topical module with material hardship questions.

1989; Cancian and Meyer 2004; Sullivan, Turner, and Danziger 2008; Nolan and Whelan 2010), and the SIPP is the primary source of nationally representative data on material hardship in the United States (Bauman 1999; Beverly 2001; USDHHS 2004; Heflin, Sandberg, and Rafail 2009; Wu and Eamon 2010). Our first measure indicates whether a household had difficulty meeting its essential household expenses. Three additional measures indicate whether or not a household reported falling behind on rent or mortgage, falling behind on utility bills, and that someone in the household chose not to see a doctor or go to the hospital when needed because of cost.⁸ All of the nonfood material hardship measures ask respondents about the previous 12 months. The exact wording of the questionnaire is available in the appendix for all outcomes.

We also estimate models in which the outcome is food insecurity, and we compare our estimates against existing studies that focus only on this outcome. The SIPP household food security measures do not correspond exactly to the official USDA food security measures included as an annual supplement to the Current Population Survey; however, they are used in several studies and are closely related to the official food security measure (Bitler, Gundersen, and Marquis 2005; Nord 2006; Gundersen et al. 2009; Ratcliffe et al. 2011; see Nord [2006] for more details). Households are classified as food insecure if they respond affirmatively to at least two questions in the food insecurity measures in the Adult Well-Being Topical Module (see the appendix). Unlike the nonfood material hardship measures, SIPP households report on the main food insecurity measures in reference to the previous 4 months.

ECONOMETRIC MODEL

Building on previous research, we pursue an instrumental variables (IV) approach in an effort to deal with the nonrandom self-selection of families into SNAP.⁹ However, rather than use two-stage least squares, we follow Ratcliffe and colleagues (2011) in modeling jointly the household decision

8. The SIPP adult well-being topical modules also ask households that report trouble paying housing and utility costs whether they faced eviction or a utility shut off. However, the incidence of these outcomes is so small that they do not adequately allow for the statistical power needed to test their relationship with SNAP benefits.

9. Full details of the econometric approach used in this study are available in the working paper version of this article, which is available at http://npc.umich.edu/publications/working_papers/?publication_id=214&.

to participate in SNAP and its probability of experiencing material hardships, using a bivariate probit model. This model includes a set of instrumental variables that are arguably related to SNAP participation but do not shift the risk of experiencing the material hardships under study. Consider the following system of equations:

$$\text{SNAP}_i^* = \mathbf{Z}_i\beta + \epsilon_i. \tag{1}$$

$$y_i^* = \mathbf{X}_i\gamma + \delta\text{SNAP}_i + v_i. \tag{2}$$

We posit that (potentially) eligible households decide to participate in SNAP by comparing costs and benefits using a net benefit index (considering both benefits and costs of program participation), written SNAP_i^* . We do not observe directly the net benefit index SNAP_i^* but rather only whether or not a household decides to participate, through the observed dummy variable $\text{SNAP}_i = 1$ if $\text{SNAP}_i^* > 0$, and $\text{SNAP}_i = 0$ otherwise.

Our outcomes of interest are measures of food and nonfood material hardship. Conceptually, we model that households report hardship if an unobserved index of financial distress (y_i^*), as described by equation (2), is above a certain threshold. However, we only observe whether the household reports that they have experienced material hardship ($y_i = 1$) or not ($y_i = 0$), based upon y_i^* . A major assumption of our model specification is that the error terms ϵ_i and v_i follow a bivariate normal distribution, scaled such that variances are equal to one and the covariance is equal to ρ . Placing a restriction on the variances of the random components allows for unique identification of the parameters.¹⁰

PARAMETERS IDENTIFICATION

The parameters of equation (1) can be consistently estimated via a probit regression. However, if $\rho \neq 0$, then a standard probit regression of equation (2) using the observed SNAP participation variable would produce biased results because of the correlation between SNAP_i and v_i . In particular,

10. The system described by eqq. (1) and (2) is fully observed, which means that endogenous variables appear on the right-hand side only as observed (Roodman 2011). For example, in eq. (2), the endogenous variable that appears in the right-hand side is SNAP_i (program participation) and not SNAP_i^* (the net benefit index). The system described by eqq. (1)

if $\rho > 0$ (i.e., after controlling for observed characteristics, households that are more likely to participate in SNAP are also more likely to experience material hardship), then the estimated value of δ would be biased upward. This is the source of the bias that, if not accounted for, makes it appear as though SNAP participation is associated with increased, rather than reduced, material hardship. However, under the distributional assumptions of the error terms, consistent estimation of δ can be achieved by jointly estimating equations (1) and (2) within a bivariate probit model.

Unlike linear models, the bivariate probit model does not require instrumental variables for identification. In fact, Brian McCall (1992) shows that, in the case of two binary outcomes modeled jointly, only the existence of at least two continuous and exogenous regressors is sufficient for identification of the parameters of the model including the joint distribution of the errors. Furthermore, Wilde (2000) shows that if the distribution of the errors is assumed to be bivariate normal, only the existence of at least one exogenous regressor with sufficient variation in its values is required for identification.

Still, adding instrumental variables enhances the validity of the estimated results by exploiting the exogenous variation in program participation induced by those instruments. However, even in the case where instruments are included, it is still possible that the bivariate probit results are driven mainly by the structural form of the model rather than by the instruments. Thus, it is important that we attempt to verify the source of the identification. For this reason, we estimated the bivariate model both with and without instruments and compared the results.

In our main specification, vector \mathbf{Z}_i encompasses \mathbf{X}_i but also includes SNAP state policy variables that are predicted to increase the cost of par-

and (2) is also recursive, which means that there are clearly defined stages of causation (Wilde 2000; Roodman 2011). In other words, we assume that (i) SNAP participation affects material hardship, and thus SNAP is included in eq. (2) but that (ii) reporting material hardship does not directly affect a household's decision to participate in SNAP, and therefore this is excluded from eq. (1). The first assumption seems natural since SNAP participation should increase the economic resources available to a household, which should reduce the likelihood that the household experiences hardships. The second, albeit stronger, assumption implies that two identical households would have the same probability of participating in SNAP regardless of whether they report hardship. The recursive nature of the system described by eqq. (1) and (2) is a necessary condition to avoid indeterminacies in the model predictions (Maddala and Lee 1976).

ticipation. Given that our models include state dummies, the instruments capture changes in those state policy variables over time rather than static levels. SNAP policy data by state and year are drawn from the US Department of Agriculture (USDA) Food Stamp Program State Rules Database.¹¹ As our first instrument, we selected the state-year proportion of SNAP households with earners within each state with a recertification period of 3 months or less. Numerous studies show that the length of recertification periods has a statistically significant estimated effect on SNAP participation (Hanratty 2006; Ratcliffe, McKernan, and Finegold 2008; Ribar, Edelhoch, and Liu 2008; Schmeiser 2012), and various constructions of state recertification periods are used as instruments in estimating SNAP participation in other studies (Yen et al. 2008; Schmeiser 2012). Recertification periods typically range between 1 and 12 months and in some cases longer. As a result of federal encouragement (exogenous to conditions within states), the late 1990s saw an increase in the proportion of recipients recertified within 3 months, especially among those in households with earners. However, this proportion fell considerably after 2000 (Hanratty 2006).

Our second instrument is the implementation of biometric technology (mostly fingerprinting of applicants), used with the goal of reducing fraud. We hypothesize, as did Ratcliffe and colleagues (2011), that this should discourage program participation. Biometrics technology was used by Texas, Arizona, and New York throughout our study period, and it was introduced in California halfway through the study period. Massachusetts implemented biometrics and then ended it during our study period. Biometric requirements have a statistically significant and substantively large effect on the probability of SNAP participation.

Other controls included in \mathbf{X}_i (and in \mathbf{Z}_i) are demographic and geographic characteristics that are associated with SNAP participation or material hardship. We include a count variable for the number of children in the household and an indicator for who serves as the head of a particular household (husband, wife, single male, or single female).¹² We also control for the highest level of schooling reported by an adult household member, and we include an indicator for the presence of a

11. The USDA Food Stamp Program State Rules Database was prepared by the Urban Institute with funding from the USDA Economics Research Service (ERS). The database was provided to us along with updated information by researchers at ERS.

12. Originally we used three age categories for children, but consistency in the point estimates led us to collapse this variable into one.

full-time worker. Race and ethnicity, age (and age squared), sex, metropolitan residence, and US citizenship of the household head are included. We also control for the state-month unemployment rate. Finally, dummies for state, year, and calendar month are included in all models.

TREATMENT EFFECT ESTIMATORS

To estimate the average treatment effect (ATE) of SNAP participation on the probability of experiencing material hardship, we average the difference between the predicted probabilities of reporting hardship with and without SNAP for each household in the sample. The ATE can be interpreted as the effect of SNAP for the average household from our study population. Standard errors for the estimated ATE were calculated using 500 bootstrap (within-state) replications.

We are also interested in estimating the effect of SNAP for the average household that chooses to participate in the program. This average treatment effect on the treated (ATT) is estimated by the average difference between the predicted probabilities of reporting hardship with and without SNAP for each participating household, taking into account their predicted probability of participation.¹³

RESULTS

Table 1 presents weighted summary statistics. Column 1 reports means for the households with incomes above 150 percent of poverty who are excluded from the multivariate analyses. The next three columns are restricted to households at or below 150 percent of poverty, divided into 4,942 observations for low-income households not reporting SNAP (col. 3) and 3,078 observations for those reporting receipt of SNAP

13. For the average treatment effect, we use the formula below (where Φ denotes the distribution function for the normal distribution):

$$ATE = \frac{1}{N} \sum_{i=1}^N (\Phi(X_i\gamma + \delta) - \Phi(X_i\gamma)).$$

For the average treatment effect on the treated, we use the formula below (where Φ and Φ_b denote the distribution functions for the normal distribution and for the bivariate normal distribution, respectively):

$$ATT = \frac{1}{\sum SNAP_i} \sum_{i=1}^N \frac{(\Phi_b(X_i\gamma + \delta, Z_i\beta; \rho) - \Phi_b(X_i\gamma, Z_i\beta; \rho))}{\Phi(Z_i\beta)} \times SNAP_i.$$

benefits (col. 4). In our main model specification, a household is categorized as a SNAP recipient if SNAP benefits are reported in the month prior to the interview (sometimes referred to as the SIPP’s reporting month).

Table 1 shows that only 13.4 percent of households with incomes above 150 percent of the poverty line reported difficulties meeting essential expenses and that only 6.3 percent reported food insecurity. Among house-

TABLE 1. Sample Means, Households with Children

	> 150% Poverty (1)	≤ 150% of Poverty		
		All (2)	Non-SNAP (3)	SNAP (4)
Initial sample size	24,354	8,020	4,942	3,078
Material hardship characteristics:				
Food hardship:				
Food insecurity in past 4 months	.063	.261	.214	.346
Nonfood hardship:				
Problem meeting essential expenses	.134	.365	.297	.487
Did not pay full rent	.053	.177	.141	.240
Did not pay full gas, oil, or electricity bills	.095	.277	.214	.388
Did not go to the doctor because of cost	.052	.139	.133	.150
SNAP participation	.027	.360	.000	1.000
Household characteristics:				
Household income as % poverty	4.245	.848	.944	.678
Number of children	1.821	2.284	2.182	2.465
Household structure:				
Headed by husband/wife	.773	.467	.584	.260
Male-headed family	.066	.068	.072	.061
Female-headed family	.160	.465	.345	.679
Maximum education level:				
Less than high school	.031	.203	.164	.273
High school	.185	.352	.332	.388
Some college	.380	.339	.358	.304
BA degree or above	.404	.106	.146	.036
1+ full-time workers in household	.891	.553	.665	.355
Live in a metropolitan area	.811	.762	.768	.752
State-month unemployment rate	5.196	5.344	5.320	5.387
Reference person characteristics:				
Male	.537	.343	.424	.197
Female	.463	.657	.576	.803
Age	40.530	37.487	38.211	36.201
Race:				
White	.829	.678	.741	.567
Black	.111	.257	.194	.371
Hispanic origin	.125	.260	.282	.223
US citizen	.928	.836	.807	.888

Source.—Authors’ analyses of a pooled sample from the 1996–2004 panels of the SIPP.

Note.—Means are weighted. Observations belong to the fourth reference month (month prior to interview date). Households must have a positive number of children. The household reference person must be age 19 or older. We used the following waves: 1996w8, 2001w8, 2004w5. These are the waves in which adult well-being topical modules were collected.

holds at or below 150 percent of the poverty line, 29.7 percent of those not receiving SNAP and 48.7 percent of SNAP recipients reported trouble meeting their essential expenses. Similarly, just over a third of low-income SNAP households reported food insecurity, as compared to 21.4 percent of low-income households not on SNAP. This positive association between reported SNAP participation and measures of material hardship is likely at least in part the result of the selection process previously described.

Not surprisingly, then, a simple probit regression shows that SNAP participation is associated with an increase in the risk of experiencing food insecurity for the average household at or below 150 percent of the poverty line (see table 2). Similarly, SNAP participation is associated with an increase in the risk that such a household will experience trouble meeting its essential expenses.

Table 3 reports the estimated coefficients from the bivariate probit models described in equations (1) and (2), which model jointly the participation decision and the probability of experiencing hardships. Columns 1 and 3 of table 3 also report the correlation coefficients between the error components in the SNAP participation equation and in the material hardship equations. As expected, the correlation coefficients are positive (i.e., $\rho > 0$), large, and statistically significant in both models. This finding means that, after controlling for observed characteristics, there are unobserved factors driving both SNAP participation and material hardships, so that households that are more likely to report SNAP are also more likely to report experiencing food insecurity or difficulty meeting essential household expenses. After accounting for these unobserved factors, we find that SNAP participation is associated with reduced material hardship, contrary to the findings from the simple probit in table 2.

Table 3 also reports that, after controlling for other factors, each additional child in a household is associated with a higher probability of SNAP participation. Single female-headed households are much more likely to participate than those headed by a married couple. Households in which the reference person is black are more likely to participate than those in which the reference person is white, and households in which the reference person is a US citizen are more likely to participate than those with a noncitizen reference person.¹⁴ Higher levels of education are associated

14. The reference person is the owner or renter of note. If the house is owned jointly by a married couple, either the husband or the wife may be listed as the reference person.

TABLE 2. Estimation Results of Simple Probit Models, Probit Coefficients

	Food Insecurity	Trouble Meeting Essential Expenses
SNAP participation	.249*** (.044)	.354*** (.046)
Family characteristics:		
Number of children	.026* (.015)	.026** (.012)
Household structure:		
<i>Married couple-headed family</i>		
Male-headed family	.243*** (.066)	.182** (.075)
Female-headed family	.193*** (.046)	.078* (.040)
Maximum education level:		
<i>Less than high school</i>		
High school diploma	-.132*** (.036)	-.031 (.034)
Some college	-.144*** (.042)	.115** (.055)
BA or advanced degree	-.392*** (.065)	-.247*** (.051)
1+ full-time workers	-.221*** (.038)	-.21*** (.032)
Lives in a metropolitan area	.058 (.050)	-.017 (.039)
State-month unemployment rate	.066** (.027)	.025 (.026)
Reference person characteristics:		
Female	.113** (.047)	.101** (.044)
Age	.027*** (.006)	.026*** (.008)
(Age) ²	.000*** (.000)	.000*** (.000)
Race:		
<i>White</i>		
Black	.025 (.039)	.058 (.048)
Hispanic origin	.148*** (.055)	-.046 (.054)
US citizen	-.032 (.055)	.116*** (.040)

Source.—Authors' analyses of a pooled sample from the 1996–2004 panels of the SIPP.

Note.—Number of observations = 8,020. All estimations include racial categories described in the article's text, state dummies, year dummies, and month dummies. Italicized variables are the omitted reference groups. Standard errors (in parentheses) are clustered by state.

* Statistically significant at the 10% level.

** Statistically significant at the 5% level.

*** Statistically significant at the 1% level.

TABLE 3. Estimation Results of Bivariate Probit Models, Probit Coefficients

	Model 1		Model 2	
	SNAP Participation	Food Insecurity	SNAP Participation	Trouble Meeting Essential Expenses
SNAP participation		-.421** (.166)		-.858*** (.250)
Family characteristics:				
Number of children	.170*** (.014)	.063 (.019)	.168*** (.014)	.092*** (.018)
Household structure:				
<i>Married couple-headed family</i>				
Male-headed family	.314*** (.061)	.298*** (.064)	.316*** (.057)	.274*** (.075)
Female-headed family	.581*** (.036)	.318*** (.064)	.59*** (.037)	.314*** (.073)
Maximum education level:				
<i>Less than high school</i>				
High school diploma	-.203*** (.037)	-.172*** (.033)	-.196*** (.039)	-.112*** (.037)
Some college	-.393*** (.046)	-.224*** (.038)	-.39*** (.047)	-.067 (.072)
BA or advanced degree	-.853*** (.07)	-.546*** (.073)	-.845*** (.073)	-.530*** (.078)
1+ full-time workers	-.652*** (.032)	-.361*** (.059)	-.655*** (.032)	-.452*** (.054)
Lives in a metropolitan area	-.069 (.047)	.037 (.049)	-.077 (.047)	-.047 (.039)
State-month unemployment rate	.051 (.038)	.084*** (.026)	.063* (.038)	.060* (.032)
Reference person characteristics:				
Female	.127** (.053)	.133*** (.048)	.112** (.051)	.131*** (.042)
Age	-.024*** (.006)	.02*** (.006)	-.024*** (.006)	.011 (.009)
(Age) ²	.000** (.000)	.000*** (.000)	.000** (.000)	.000*** (.000)
Race:				
<i>White</i>				
Black	.332*** (.037)	.098** (.048)	.331*** (.037)	.185*** (.047)
Hispanic origin	.063 (.086)	.153 (.06)	.078 (.091)	-.016 (.038)
US citizen	.215*** (.083)	.015 (.056)	.209** (.086)	.183*** (.054)
State policies:				
Biometrics	-.351*** (.059)		-.286*** (.056)	
Short recertification period	-.183* (.096)		-.156* (.089)	
Correlation of errors terms	.400*** (.109)		.716*** (.149)	

Source.—Authors’ analyses of a pooled sample from the 1996–2004 panels of the SIPP.

Note.—Number of observations = 8,020. All estimations include racial categories described in the article’s text, state dummies, year dummies, and month dummies. Italicized variables are the omitted reference groups. Standard errors (in parentheses) are clustered by state.

* Statistically significant at the 10% level.

** Statistically significant at the 5% level.

*** Statistically significant at the 1% level.

with a decreased probability of SNAP participation, and households with one or more full-time workers are less likely to participate than those without. Also, both of our instrumental variables reduce the probability of SNAP participation, as expected.¹⁵ As a larger proportion of a state's SNAP caseloads are recertified in 3 months or less, the probability of participation decreases. Use of biometrics is also associated with a reduction in the probability of participation.

Regarding the probability of reporting hardships, columns 2 and 4 of table 3 report on the effect of SNAP participation and other covariates on the risk of reporting food insecurity (col. 2) and trouble meeting essential expenses (col. 4). Additional children are associated with increased food insecurity and nonfood material hardship. Female-headed households are more likely to experience both outcomes than households headed by a married couple. Higher levels of education and the presence of full-time workers are both associated with a lower risk of food insecurity and of trouble meeting essential expenses. Households in which the reference person is black are more likely to experience both outcomes than households in which the reference person is white.

The coefficients from table 3 are used in table 4 to estimate the ATE and the ATT of SNAP participation on the probability of reporting food insecurity and difficulty meeting essential household expenses. Similar estimation results are also included for three subcategories of nonfood hardship: falling behind on rent or mortgage, falling behind on utility bills, and medical hardship.

Column 1 in table 4 shows that for the average household in our sample, SNAP participation results in a statistically significant 12.8 percentage point reduction in the risk of being food insecure (from an estimated 33.4 percent to an estimated 20.6 percent). This estimated effect size is close to what is reported by Ratcliffe and colleagues (2011), who find that SNAP reduces food insecurity among households (not restricted to households with children) by 16.2 percentage points, even though they use a different set of instruments (a point we return to later). We also find that for the average household in our sample, SNAP is associated with a statistically significant 28.3 percentage point reduction in the risk that it will

15. The chi-square statistics for the null hypothesis that the excluded instruments coefficients are zero are 53.80 (p -value $< .001$) for col. 1 and 30.62 (p -value $< .001$) for col. 3.

TABLE 4. Estimated Effects of SNAP Participation on Material Hardships, in Percentage Points

	With Instruments		Without Instruments	
	ATE	ATT	ATE	ATT
Food hardship:				
Food insecurity	-12.843*** (4.854)	-16.799** (7.028)	-13.699*** (4.258)	-18.069*** (6.249)
Nonfood hardship:				
Trouble meeting essential expenses	-28.280*** (8.714)	-35.450*** (11.963)	-33.645*** (6.624)	-43.447*** (9.399)
Did not pay full rent	-7.240** (3.106)	-10.083** (4.747)	-9.271*** (2.801)	-13.348*** (4.565)
Did not pay full gas/oil/electricity bills	-15.338** (6.157)	-20.723** (9.261)	-19.389*** (5.709)	-27.157*** (9.141)
Did not go to the doctor because of cost	-8.500** (3.755)	-11.070* (5.784)	-9.243** (3.642)	-12.257** (5.787)

Source.—Authors’ analyses of a pooled sample from the 1996–2004 panels of the SIPP.

Note.—ATE = average treatment effect. ATT = average treatment effect on the treated. See footnote 13 for the calculations of ATE and ATT. All estimations include covariates described in the article’s text. Standard errors (in parentheses) are calculated from 500 bootstrap draws within each state.

* Statistically significant at the 10% level.

** Statistically significant at the 5% level.

*** Statistically significant at the 1% level.

have trouble meeting its essential expenses (from 50.8 percent to 22.5 percent), a statistically significant decrease of 7.2 percentage points (from 21.8 percent to 14.6 percent) in the risk that a household will fall behind on their rent or mortgage, a 15.3 percentage point decrease (from 36.1 percent to 20.8 percent) in the risk of falling behind on utility bills, and a decrease of 8.5 percentage points in medical hardship (from 18.6 percent to 10.1 percent).

The estimated effects of SNAP for the average participating household (i.e., the ATT) presented in column 2 are a bit larger, as should be expected given the self-selection into the program. Taken together, the results from columns 1 and 2 suggest that SNAP not only reduces the food insecurity of recipient households but also reduces the incidence of non-food material hardships.

Columns 3 and 4 report on results from bivariate probit models that are identical to those reported in columns 1 and 2, except that our instruments (recertification periods and biometric requirements) are omitted. The resulting point estimates for the effect of SNAP participation on material hardship (food and nonfood) are very close to the models with instruments. Moreover, we also estimated standard two-stage least square (2SLS) regres-

sions and did not observe any statistically significant relationship between SNAP participation and food or nonfood material hardship in the second stage, even though our instruments achieve the standard metric of statistical strength.¹⁶

The above results suggest that identification of our estimates does not rely on the instruments. Rather, identification is obtained from the structure of the bivariate probit model. This is important because it speaks to the character of the findings. While identification coming from exogenous instrumental variables can be considered comparable to a natural experiment, identification coming from the structure of the bivariate probit is more subject to bias if the underlying assumptions of the models are incorrect.

For this reason, we undertake a number of sensitivity analyses to test the robustness of our findings. McCall (1992) and Wilde (2000) argue that identification in the bivariate probit should require very few exogenous regressors. Therefore, we analyzed how sensitive our estimates (including the correlation of the error terms) are to the inclusion of additional covariates that are arguably exogenous. These results are presented in table 5. Both in the case of food insecurity and in problems meeting essential expenses, a negative and statistically significant effect of SNAP is obtained after controlling only for the number of children and for household structure.¹⁷ Note also that after controlling for only a few covariates, the estimated effects of SNAP participation on these hardships and the estimated correlation coefficient are relatively stable to the introduction of additional controls. This stability of the estimates suggests that they may be robust to the omission of potentially unobserved factors, which provides reassurance of their validity.

In table 6, we report on a series of additional sensitivity tests. In each case we report the estimated ATE using a bivariate model that controls for all observed characteristics, including the discussed instruments. In our primary tables, we defined SNAP receipt as receiving benefits in the fourth reference month, or the month prior to the interview. Here, we try alternative constructions of the SNAP receipt variable, requiring receipt in all

16. The *F*-statistic associated with the instruments in the first stage was 22.1, above the standard suggested cutoff value of 10.0 (Stock, Wright, and Yogo 2002).

17. Similarly, the model identifies a positive, strong, and statistically significant correlation between the error terms in eqq. (1) and (2).

TABLE 5. Sensitivity of ATE Estimates to the Inclusion of Different Controls, in Percentage Points

	Model Specifications									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Food insecurity:										
SNAP participation	13.336*** (1.020)	-16.026 (13.418)	-15.075*** (3.080)	-17.403*** (3.458)	-15.251*** (4.106)	-15.790*** (3.984)	-12.859*** (4.117)	-13.157*** (4.146)	-13.290*** (4.130)	-13.699*** (4.258)
Errors correlation (rho)	.000 (.076)	.535* (.254)	.465*** (.080)	.499*** (.092)	.430*** (.110)	.444*** (.106)	.387*** (.105)	.394*** (.105)	.397*** (.101)	.416*** (.100)
Trouble meeting essential expenses:										
SNAP participation	18.449*** (1.076)	48.854* (28.109)	-28.433*** (7.306)	-29.593*** (6.214)	-31.695*** (4.510)	-31.012*** (4.658)	-30.493*** (6.422)	-32.100*** 5.9417	-32.589*** (5.601)	-33.645*** (6.624)
Errors correlation (rho)	.000 (.155)	-.559 (.729)	.726*** (.097)	.751*** (.090)	.782*** (.099)	.766*** (.094)	.753*** (.119)	.789*** (.114)	.802*** (.105)	.834*** (.102)
Controls:										
Number of children		X	X	X	X	X	X	X	X	X
Household structure			X	X	X	X	X	X	X	X
Maximum education level				X	X	X	X	X	X	X
1+ full-time workers in family					X	X	X	X	X	X
Reference person's sex and age						X	X	X	X	X
Race, ethnicity, and citizenship							X	X	X	X
Urban/rural area								X		
State unemployment rate							X		X	X
State, year, and month FE								X	X	X

Source.—Authors' analyses of a pooled sample from the 1996–2004 panels of the SIPP.

Note.—Number of observations = 8,020. All estimations include covariates described in the article's text. Standard errors (in parentheses) are calculated from 500 bootstrap draws within each state.

* Statistically significant at the 10% level.

** Statistically significant at the 5% level.

*** Statistically significant at the 1% level.

TABLE 6. Additional Sensitivity Analyses of ATE Estimates, in Percentage Points

	Food Insecurity	Trouble Meeting Essential Expenses
A. Alternative definitions of SNAP participation:		
Equal to 1 if participation in all reference months, 0 otherwise	−15.819*** (5.259)	−31.160*** (8.159)
Equal to 1 if participation in any reference month, 0 otherwise	−8.974* (5.331)	−20.544** (9.559)
Equal to 1 if participation in first reference month, 0 otherwise	−11.871** (5.758)	−27.113*** (9.113)
B. Alternative samples by income:		
175% of poverty	−16.178*** (3.672)	−30.734*** (6.181)
125% of poverty	−5.085 (5.807)	−21.278* (11.550)
C. Other sensitivity tests:		
Controlling for family income	−12.978*** (4.680)	−22.423** (10.326)
Dropping imputed values	−18.992*** (4.465)	−36.943*** (6.175)
Weighted regressions	−15.033*** (4.950)	−27.276*** (9.158)

Source.—Authors’ analyses of a pooled sample from the 1996–2004 panels of the SIPP.

Note.—All estimations covariates are described in the article’s text. Standard errors (in parentheses) are calculated from 500 bootstrap draws within each state.

* Statistically significant at the 10% level.

** Statistically significant at the 5% level.

*** Statistically significant at the 1% level.

4 reference months, receipt in any reference month, and finally receipt in the first reference month. In all cases, the point estimates of the effects on food insecurity and nonfood material hardship remain statistically significant (at least at the 10 percent confidence level).

We also restricted the sample at two alternative income thresholds. Our ATE estimates at the 175 percent of the poverty threshold are highly statistically significant. For the more restrictive sample using 125 percent of the poverty threshold, the ATE estimates are smaller, particularly for the food insecurity outcome, which becomes insignificant. This suggests that SNAP receipt may be less able to buffer the poorest recipients from the risk of hardships, especially food insecurity.

Some studies on SNAP and food insecurity control for income (Yen et al. 2008). Although this is an endogenous variable, we do this in panel C of

table 6 (using dummies for household income falling within 0 percent to 50 percent, 51 percent to 100 percent, and 101 percent to 150 percent of the poverty level); our ATE estimates remain substantively similar to those in table 4. We also ran a specification that drops all SIPP observations with imputed values. The ATE estimates become larger and remain statistically significant. Finally, we ran models adding household-level weights. The estimated ATEs again remain similar to those in table 4.

DISCUSSION

All told, our estimates suggest that SNAP has a substantively large and negative effect on both the food and nonfood material hardship of recipient households. We estimate that SNAP reduces household food insecurity by 12.8 percentage points. Further, our estimates suggest that SNAP reduces the risk that households will fall behind on their nonfood essential expenses, including housing (by 7.2 percentage points) and utilities (by 15.3 percentage points), and that it reduces the risk of medical hardship (by 8.5 percentage points). These findings are robust to numerous sensitivity tests.

These findings come with an important qualifier, however. The identification of our estimates is achieved through the joint modeling of the decision to participate in SNAP and the probability to report material hardships. Although we include instrumental variables in an effort to strengthen the causal validity of the model we assessed, our point estimates are similar in specifications with and without instruments. Thus, our estimates are being driven by the structure and assumptions of the bivariate probit model. The same may be true of other studies in the SNAP and food insecurity literature—and even other literatures—that use instrumental variables in nonlinear estimation frameworks.

At \$78.4 billion in federal spending for fiscal year 2012, and serving 46.6 million people, SNAP is now one of our largest means-tested income transfer programs. Because SNAP participation may allow households to reallocate resources otherwise directed toward food purchases, SNAP may affect many aspects of household economic well-being. The prominence of SNAP among means-tested programs suggests that it should be evaluated using a broader set of material hardship outcomes than food insecurity and other food-related outcomes. To our knowledge, this study is the first to

estimate the effects of SNAP benefits on nonfood measures of material hardship for households with children.

Our estimates suggest that SNAP benefits reduce material hardship in recipient households with children by increasing their capacity to meet both food and nonfood essential expenses. This finding that SNAP benefits spillover from food to nonfood expenses is especially important given the dramatic decline in cash assistance caseloads since the mid-1990s. If our results are correct, then SNAP is playing a vital role in reducing the food and nonfood material hardship of recipient households. Thus, we expect that any change in the availability of or amount of SNAP benefits would trigger changes in the material well-being of recipient households. Our findings suggest that increased SNAP, either in terms of its availability or amount of benefits, should lead to reduced material hardship, both food and nonfood, among recipient households beyond what would have otherwise been experienced. Conversely, reductions in SNAP should lead to increased material hardship. Policy makers should take these estimates into account when considering changes to the United States' largest federal means-tested income transfer program.

APPENDIX

MATERIAL HARDSHIP MEASURES IN THE SIPP

Food Security in the SIPP

Following Nord 2006, we defined a household as being *food insecure* if they report at least two of the following:

"I'm going to read you some statements that people have made about their food situation. For these statements, please tell me whether it was OFTEN TRUE, SOMETIMES TRUE, or NEVER TRUE for . . . in the last four months."

"The food that (I/WE) bought just didn't last and (I/WE) didn't have money to get more." Was that often, sometimes or never true for . . . in the last four months?"

"The next statement is: "(I/WE) couldn't afford to eat balanced meals." Was that often, sometimes or never true for . . . in the last four months?"

"In the past four months did you or the other adults in the household ever cut the size of your meals or skip meals because there wasn't enough money for food?"

“In the past four months did you or the other adults in the household ever eat less than you felt you should because there wasn’t enough money to buy food?”

“In the past four months did you or the other adults in the household ever not eat for a whole day because there wasn’t enough money for food?”

Essential Household Expenses

“Next are questions about difficulties people sometimes have in meeting their essential household expenses for such things as mortgage or rent payments, utility bills, or important medical care. During the past 12 months, has there been a time when (YOU/YOUR HOUSEHOLD) did not meet all of your essential expenses?”

Rent/Mortgage

“The following are some of the specific difficulties people experience with household expenses. Was there any time in the past 12 months when (YOU/YOUR HOUSEHOLD) did not pay the full amount of the rent or mortgage?”

Utilities

“How about not paying the full amount of the gas, oil, or electricity bills? Was there a time in the past 12 months when that happened to (YOU/YOUR HOUSEHOLD)?”

Medical Hardship

“In the past 12 months was there a time (YOU/ANYONE IN YOUR HOUSEHOLD) needed to see a doctor or go to the hospital but did not go?”

NOTE

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Exploring Residential Mobility among Low-Income Families

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ABSTRACT While it is widely recognized that low-income families move frequently, the complexities of such transitions are not well understood. This article uses panel data from the Women's Employment Study to examine the patterns and correlates of different forms of mobility among one sample of low-income mothers in the years following welfare reform. The analysis reveals considerable heterogeneity between movers and nonmovers and, to a lesser extent, between those who experience positive and negative moves. Most families experience positive residential transitions, yet nearly a quarter of movers are dissatisfied with their housing circumstances following a move. Multivariate analyses show that being African American, experiencing a job loss, and reporting hard drug use significantly increase the probability of experiencing negative mobility, while having a physical health problem increases the probability of dissatisfaction in the absence of mobility.

Residential mobility is common in the United States, where nearly half the population moves over a 5-year period (Berkner and Faber 2003; Ihrke, Faber, and Koerber 2011). Most moves are voluntary, reflecting transitions into more affordable or better-quality housing, changes in household size, or relocation for employment. Other moves are involuntary, resulting from eviction, foreclosure, or destruction of a housing unit or property (Clark and Onaka 1983). Although mobility is common across the economic spectrum, low-income households move more frequently than other households, and they are more likely to experience negative mobility in the form of evictions and homeless episodes (Hartman and Robinson 2003; Nichols and Gault 2003).

While it is widely recognized that low-income households move frequently, the complexities of residential transitions are not well understood. For example, it is not clear whether mobility, defined as any change in residence over a given period of time, reflects a voluntary and positive transition for most poor families or a forced and involuntary transition. Among

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the general population, most moves represent a decision to improve housing or neighborhood quality or to move closer to friends or family (Schachter 2001). Yet low-income families have fewer resources than other families and are more likely to experience problems related to employment, health, and housing (Mayer and Jencks 1989; Danziger, Kalil, and Anderson 2000; Johnson and Corcoran 2003; Joint Center for Housing Studies of Harvard University 2011). These problems may increase the incidence of housing instability, which is mobility that is forced or involuntary. For instance, unstable or low-wage work might increase the risk that a family will experience an eviction.

Similarly, it is unclear whether the absence of mobility reflects contentment with existing housing circumstances or constraints on the ability to improve existing housing and neighborhood circumstances by moving. Mobility scholars have theorized that for most nonmovers a lack of mobility reflects a satisfactory fit between housing needs and circumstances (Speare 1974; Landale and Guest 1985; South and Deane 1993). Yet the same problems that leave low-income families vulnerable to negative mobility may act as constraints on positive forms of mobility. For example, individuals in low-wage jobs may have few financial resources available for moving out of poor-quality housing units or neighborhoods.

Because residential mobility has consequences for parent and child well-being, this lack of knowledge about the prevalence and correlates of different forms of residential mobility represents a gap in the literature. Voluntary mobility into higher-quality neighborhoods or housing units can lead to improvements in neighborhood safety and positive changes in physical and mental health for movers (Leventhal and Brooks-Gunn 2003; Sanbonmatsu et al. 2011). For families that are able to remain in high-quality housing and neighborhoods, such benefits may persist over time. In contrast, unstable or frequent mobility can disrupt employment and social networks and may interfere with children's educational achievement and emotional well-being (Astone and McClanahan 1994; Pribesh and Downey 1999; Crowley 2003; Harkness and Newman 2005). In addition, families that are constrained in their mobility may be forced to remain in poor-quality housing or unsafe neighborhoods.

To provide insight into the patterns and correlates of residential mobility among low-income families, this article explores mobility among one sample of families in the years following the 1996 passage of the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA). The ar-

ticle examines the extent and frequency of different types of mobility, using panel data from the five-wave Women's Employment Study (WES), and it categorizes housing circumstances as either positive or negative, using sample members' own subjective assessments. The study analyzes how life-cycle and demographic characteristics, personal problems, and housing problems are related to mobility and how experiences of housing instability (e.g., evictions and homeless episodes) and transitions between renting and owning differ for women who viewed their circumstances following the move, or nonmove, as positive versus negative.

The analysis contributes to a growing body of research that explores different types of residential transitions among low-income families. It provides descriptive information about the extent of positive and negative mobility and helps to identify the characteristics and experiences that distinguish different groups of movers and nonmovers. By focusing on current and former welfare recipients, the analysis also provides insight into the well-being of families in the postwelfare reform era. While many scholars have examined the economic and material well-being of low-income families in the years since PRWORA's passage, few have focused on residential mobility as an indicator of families' well-being.

REVIEW OF LITERATURE

Low-income populations consistently report higher rates of residential mobility than other populations (Coulton, Theodos, and Turner 2009; Ihrke and Faber 2012). While approximately 10 percent of Americans moved between 2011 and 2012, the comparable percentage for those living in poverty was above 20 percent (Ihrke and Faber 2012). The mobility rate is particularly high for low-income families with children who receive cash welfare benefits through Temporary Assistance for Needy Families (TANF), the public assistance program created under the PRWORA. One study of current and former welfare recipients in Connecticut finds that 65 percent of study members moved in the 3 years following PRWORA's passage (Bloom et al. 2002), and a similar study conducted in Florida finds that over 70 percent of study members moved over a comparable period (Bloom et al. 2000).

Recently scholars have begun to analyze variation in the mobility of low-income populations. Claudia Coulton and colleagues (2009, 2012) investigate the complexities of residential mobility using data from the 10-city "Making Connections" initiative, a decade-long project of the Annie E. Casey Foun-

dation focused on improving outcomes for disadvantaged families. Dividing a population of low-income households into clusters based on an analysis of individual, housing, and neighborhood characteristics reveals considerable heterogeneity among low-income families that move (Coulton et al. 2009, 2012). Approximately 30 percent of families in this study are categorized as “up and out movers” (Coulton et al. 2012, 70). These movers are younger, have higher relative incomes, and move longer distances into higher-quality neighborhoods than other clusters. A second cluster of movers, called “nearby attached movers” (70), represent 24 percent of movers and are middle-aged households that move shorter distances than other clusters with minimal changes in housing or neighborhood quality. “Churning movers” (69) constitute the final 46 percent of the sample. These young households have the lowest incomes relative to other clusters of movers, and they experience few changes in quality following a move. While the first two clusters appear to represent positive transitions, the third cluster likely includes moves that are perceived by families as negative or motivated by financial or housing problems (Coulton et al. 2009, 2012).

The Making Connections study also provides evidence of heterogeneity among nonmovers. Nearly half of low-income households that do not move are categorized as “positive stayers” through cluster analysis (Coulton et al. 2012, 73). Relative to other clusters of nonmoving households, positive stayers are more likely to include working adults and to report higher incomes. Most are homeowners and report high levels of neighborhood quality and engagement. Thirty-one percent of nonmoving households are categorized as “long-term older stayers” (73). Compared to other nonmoving households, households within this cluster are older and have lower incomes, but few report housing affordability problems or neighborhood quality problems. Finally, approximately 22 percent of nonmoving households are categorized as “dissatisfied stayers” (72). Dissatisfied stayers are younger than other nonmoving households; they report difficulty paying housing costs, and they are the least satisfied with their housing and neighborhood circumstances (Coulton et al. 2012). This suggests that for a substantial minority of nonmoving households, residential stability may reflect constraints on mobility rather than satisfaction with current residence.

The high percentages of churning movers and dissatisfied stayers in the Making Connections study suggest that negative forms of mobility may be more common than previous research indicates. Studies that examine the incidence of evictions or homelessness, for example, typically find that less

than 10 percent of low-income families experience this type of mobility (Bloom et al. 2000, 2002; Acs and Loprest 2004; Wood and Rangarajan 2004), though between 12 and 20 percent experience an eviction or homeless episode over time (Phinney et al. 2007). While recent research draws attention to different forms of residential mobility in low-income communities, few studies explore these complexities in depth. As a result, little is known about the individual- and household-level factors that distinguish low-income households that experience positive forms of mobility from those that experience negative forms of mobility, or the factors that distinguish dissatisfied nonmovers from other nonmoving households. Previous research on residential mobility provides some guidance regarding the factors that are likely to affect voluntary forms of mobility, as well as those that place families at risk for experiencing negative moves, such as moves associated with evictions or homeless episodes. This research draws attention to the ways in which life-cycle and demographic characteristics, personal and household problems, and housing and neighborhood problems shape both positive and negative residential transitions.

DEMOGRAPHIC AND LIFE-CYCLE CHARACTERISTICS

Individual demographic characteristics, particularly those related to the life cycle, are consistently associated with mobility in past research. Scholars theorize that characteristics such as age, race, marital status, and household size influence mobility indirectly through their effect on household resources and residential satisfaction (Rossi 1955; Speare 1974; Speare, Goldstein, and Frey 1975; Newman and Duncan 1979; Landale and Guest 1985). Residential satisfaction refers to the fit between a household and its housing circumstances. When this fit changes, often due to events associated with the life cycle, families are more likely to consider moving and more likely to move.

Young adults, for example, are more likely than older adults to experience mobility (Ihrke and Fader 2012). Young adults engage in many activities that necessitate voluntary residential transitions, such as leaving home to attend college, getting married, and having children. Yet young adults are also vulnerable to involuntary moves because they are less likely to have savings or wealth, which can protect against residential instability during times of economic hardship. Racial minorities, too, move at higher rates than other Americans, and they are more likely than other Americans to experi-

ence negative moves, such as those resulting in homelessness (Sommer 2001; Ihrke and Faber 2012). Racial differences also exist with respect to savings and wealth (Massey and Denton 1993), which may increase the risk of housing instability. Race may also directly influence mobility because racial discrimination in the housing market can limit the availability of housing (Yinger 2001). Scott J. South and Glenn D. Deane (1993), for instance, show that African American households are less likely to move than white households, despite having similar levels of neighborhood dissatisfaction, suggesting that racial minorities may face barriers to voluntary mobility that other households do not face.

Among the general population, movers have smaller households than nonmovers and are less likely than nonmovers to be married or cohabiting (Ihrke, Faber, and Koerber 2011). Lower rates of mobility among larger families may reflect the stronger attachment that such families have with their housing and neighborhoods or the constraints that such families face in the housing market. In addition to indirectly influencing mobility through residential satisfaction, household size may have a direct effect on mobility because larger families may have fewer available housing options (Long 1972; Kleit and Manzo 2006). Families are also underrepresented among those experiencing negative forms of mobility, such as homeless episodes (Burt et al. 2001). Because marriage often reflects a stable living arrangement, those who are married may have less need or desire to move. Marriage may also protect against involuntary forms of mobility because two-parent families have more economic resources than single-parent families (Blank 1997). When cohabitation reflects a stable relationship, it may depress voluntary mobility just as marriage does. Yet research suggests that cohabitation is less stable than marriage (Bumpass and Sweet 1989; Smock 2000), and women who are cohabitating may be more likely than married women to experience a move due to a relationship ending.

CONSTRAINTS AND RISK FACTORS

In addition to life-cycle and demographic characteristics, personal problems can act as a constraint on positive moves or they can increase the risk of negative or forced moves. Moving requires resources, information, and ability, and households with fewer resources, incomplete information, and limited ability may be unable to act on a preference to move (Landale and Guest 1985). At the same time, characteristics that constrain positive forms of mo-

bility may increase the risk of negative mobility either directly or by depleting resources that protect against housing instability.

Employment may be associated with increased rates of mobility, as those who work steadily and save earnings have more resources available to act on a desire to move. In contrast, limited or unstable work may prevent voluntary moves and place families at greater risk for experiencing various forms of housing instability (Puckett, Renner, and Slack 2002). Nancy S. Landale and Avery M. Guest (1985) theorize that home ownership acts as a constraint on voluntary mobility because it reflects investment made at a current residence. Home ownership may also protect against housing instability by serving as a source of wealth or savings.

Government housing assistance, available in the form of public housing, publicly assisted housing, and tenant-based assistance, can enable positive forms of mobility while reducing the likelihood of housing instability (Orr et al. 2003; Feins and Patterson 2005; Kleit and Manzo 2006; Wood, Turnham, and Mills 2008; Sanbonmatsu et al. 2011). Housing assistance can lead to voluntary mobility by increasing the accessibility and affordability of more desirable housing (Orr et al. 2003; Wood et al. 2008). Vouchers and other forms of assisted housing may also decrease the incidence of housing instability by keeping housing affordable.¹

Mobility requires potential movers to gather information about the private housing market or housing assistance programs (Popkin and Cunningham 2002). Individuals with low educational achievement or limited work skills may face difficulty locating available units in the private market or they may be unaware of private or public programs that help households identify or secure new housing arrangements. These barriers may also limit an individual's ability to access the information or resources necessary to prevent an eviction, and they have been associated with housing instability in previous research (Phinney et al. 2007).

In addition, movers must be physically and mentally able to engage in what is often a highly stressful and physically challenging activity. Health

1. In an analysis of the experimental Effects of Housing Vouchers on Welfare Families program, Michelle Wood, Jennifer Turnham, and Gregory Mills (2008) find that vouchers facilitated initial mobility for program participants and reduced the incidence of doubling-up by 69 percent and the extent of homelessness by 74 percent. Research also shows that poor families that receive housing assistance are much less likely to experience homelessness or to double-up with relatives or friends (Shinn et al. 1998; Metraux and Culhane 1999; Stojanovic et al. 1999; Zlotnick, Robertson, and Lahiff 1999; Wood and Rangarajan 2004; Wood et al. 2008).

problems and substance abuse can therefore act as a constraint on mobility, particularly for those with more acute problems (Popkin and Cunningham 2002; Popkin, Cunningham, and Burt 2005). Mental and physical health problems and substance abuse are more common among those experiencing homelessness (Wright and Weber 1987; Bassuck et al. 1998; Burt et al. 2001), and they are associated with increased risk of housing-related hardship among low-income families (Phinney et al. 2007; Sullivan, Turner, and Danziger 2008). Such problems can influence involuntary mobility indirectly by depleting the economic resources of a household, particularly for individuals who lack health insurance. Individuals with severe mental illness or substance abuse may also be vulnerable to housing instability if their illness or substance use leads to interpersonal problems with other household members, the landlord, or other tenants (Mojtabai 2005).

Finally, domestic violence can constrain voluntary moves while increasing the risk of involuntary moves. Individuals who experience violence may find themselves without a credit history and landlord references and may have limited economic resources as a result of their experience with domestic violence (Pearce 1999; Menard 2001). Research also suggests that those who experience violence are vulnerable to eviction if their partner's violence is directed toward a landlord or other tenants (Menard 2001).

HOUSING AND NEIGHBORHOOD CHARACTERISTICS

Housing and neighborhood problems factor prominently into self-reported reasons for mobility (Schachter 2001). Low-income populations often have trouble finding affordable housing, and problems with affordability are cited by movers as motivating voluntary and involuntary moves (Burt et al. 2001; Acs and Loprest 2004). Affordability problems may lead to mobility if households decide to move to reduce housing expenses. At the same time, such problems may lead to evictions or the need to double up to share expenses. Families experiencing physical housing problems, such as a lack of heat or inadequate plumbing, or problems with neighborhood safety may elect to move to improve housing and neighborhood conditions. Such problems may also increase the likelihood of forced mobility if housing is condemned or destroyed. Some research suggests that among the general population, housing problems do not directly affect mobility, although they are associated with residential satisfaction (Newman and Duncan 1979). Yet, for low-income families, housing and neighborhood problems may have

more of a direct effect on mobility because housing and neighborhood problems are more pronounced in low-income communities (US Department of Housing and Urban Development 2003).

CONTRIBUTION OF THE CURRENT STUDY

This article expands existing research in several ways. First, whereas previous research either does not distinguish between positive and negative forms of mobility or focuses on a single type of mobility, this study analyzes the incidence of both positive and negative moves among one sample of low-income families. By comparing the characteristics of different groups of movers, it is possible to examine heterogeneity between nonmovers and movers, as well as between positive and negative nonmovers and movers. Using respondents' subjective assessments of their housing circumstances in order to categorize mobility as positive or negative complements prior research that categorizes moves solely on the basis of type (e.g., a move preceded by an eviction or a move into a better-quality neighborhood).

Second, because the WES data contain detailed measures of employment, individual attributes, personal and household problems, and housing and neighborhood conditions, this study is able to explore relationships between preexisting personal and household problems and positive and negative forms of mobility. Many of the measures in the WES, including those related to health and other household problems, are unavailable in larger, nationally representative projects. The longitudinal nature of the data permits an analysis of whether problems that occur prior to a move are associated with subsequent experiences of mobility.

Third, by including homeowners as well as renters, the data provide a broader snapshot of residential mobility among low-income families. Existing research on mobility in low-income communities tends to focus on renters (Wood et al. 2008; Sanbonmatsu et al. 2011), and few studies include homeowners. While most poor families rent rather than own their home, rates of homeownership among low-income families have increased in recent years. Thirty-four percent of households in the lowest income quintile owned their home in 1994; by 2006, the rate of homeownership had increased to 38 percent (Bostic and Lee 2007). Because homeowners are less likely to move than renters, studies that exclude homeowners may overstate the extent of mobility within low-income communities, particularly

in areas where home ownership is more common. Including homeowners therefore offers a more complete description of mobility within low-income communities.

Finally, this article draws attention to an important indicator of family well-being that is underexplored within the literature on families after welfare reform. Existing research on family well-being after welfare reform typically focuses on economic or employment-related indicators, such as household income, receipt of public assistance, or levels of work activity (see Danziger et al. 2000; Lichter and Jayakody 2002). Few studies explore mobility as an indicator of family well-being. By examining the mobility patterns of WES respondents, this article aims to provide insight on how families fared in the early years following welfare reform with respect to their housing and mobility circumstances.

DATA, MEASURES, AND METHODS

The data used in this analysis are drawn from the Women's Employment Study, a panel study of low-income mothers who were interviewed five times in the 6 years following welfare reform. The initial WES sample consists of 874 women who received cash welfare in one urban Michigan county in February 1997, 6 months after welfare reform was passed. Sample members were selected with equal probability from an ordered list of white and African American, single, female heads of household between the ages of 18 and 54 who received welfare benefits. Trained interviewers conducted in-person interviews ranging from 1 to 1.5 hours with these women in the fall of 1997, 1998, 1999, 2001, and 2003. Response rates at the five waves were 86 percent ($N = 753$), 92 percent ($N = 693$), 91 percent ($N = 632$), 91 percent ($N = 577$), and 93 percent ($N = 536$), respectively.² This analysis pools data from the fourth and fifth survey years to produce an unbalanced panel of 1,111 observations. The pooled data set includes 576 observations from the 2001 survey year and 535 observations from the 2003 survey year.³ Observations from the first 3 survey years

2. Brian Cadena and Andreas Pape (2006) analyze attrition in WES and conclude that there is little evidence that attrition from the sample was nonrandom. As a result, sample weights are not used in analyses of WES data.

3. Two observations (one from 2001 and one from 2003) are excluded because information on satisfaction with current housing conditions is missing.

were not included in the pooled data set because a small number of independent variables were not available in the first years of data collection.⁴

The first part of the analysis examines the incidence of positive and negative mobility among WES respondents and compares groups of non-movers and movers with respect to life-stage and demographic characteristics such as age and race, individual and household problems, and housing and neighborhood problems. In addition to descriptive comparisons, this section of the analysis uses multinomial logistic regression to estimate independent relationships between positive and negative mobility and the set of independent variables. Regression models use robust standard errors to adjust for the fact that each sample member contributes multiple observations to the pooled data set (see Allison 1999). Because the coefficients do not reveal the magnitude of the relationship between independent and dependent variables, the analysis calculates predicted probabilities to show how each statistically significant independent variable affects the likelihood of different types of mobility.

The dependent variable is constructed from two survey questions. The first survey question asks, "Have you moved since [previous interview date]?" and the second question asks, "How satisfied are you with your current housing situation: very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied?" Respondents are grouped into four categories: those who moved and reported satisfaction following a move (satisfied movers), those who moved and reported dissatisfaction with their housing circumstances following a move (dissatisfied movers), those who did not move and reported satisfaction with their current housing circumstances (satisfied stayers), and those who did not move between survey years and reported dissatisfaction with their housing circumstances in the current survey year (dissatisfied stayers).⁵

While the dependent variable is measured in the current survey year, many independent variables are drawn from earlier survey years. The

4. Specifically, the 1997 and 1998 survey years did not ask respondents to report on housing and neighborhood conditions. As a result, it is not possible to obtain lagged measures of housing and neighborhood conditions for the 1998 or 1999 survey years. Observations from the 1997 survey year are not included because it is not possible to lag independent variables for the first survey year.

5. Respondents are coded as "satisfied" if they report being "very satisfied" or "somewhat satisfied" with housing and "dissatisfied" if they report being "very dissatisfied" or "somewhat dissatisfied" with housing.

majority of independent variables capturing life-cycle and neighborhood circumstances are drawn from the survey wave conducted just prior to observing a move or nonmove in order to assess how characteristics and circumstances experienced at a prior point in time are associated with moving or staying in place. For example, marriage and cohabitation, health problems and drug use, and housing and neighborhood problems are all drawn from the prior survey year. A small number of variables (percentage of months worked between years, job loss, and domestic violence) are measured in the current year but assess the period of time between survey years. For example, the percentage of months worked variable calculates the percentage of months that a respondent was employed between the prior survey year and the current survey year.

Race, low educational attainment, and human capital barriers are measured in the first year of data collection (1997). To help control for unmeasured characteristics that may affect positive and negative mobility as well as personal and household characteristics, the analysis includes a control for housing dissatisfaction prior to any moves within the survey years. This variable is drawn from the third year of data collection (1999).⁶ Appendix table A1 provides information on the dependent and independent variables used in the analysis.

The second part of the empirical analysis examines whether positive and negative movers differ with respect to their experiences of housing instability, transitions between renting and owning, and changes in housing satisfaction. In this analysis, housing instability refers to a type of mobility that is forced or involuntary in nature. Housing instability is measured as an eviction, homelessness, doubling-up to share expenses, or three or more moves between survey years.⁷ Respondents are coded as steady

6. The variable measuring prior housing dissatisfaction is drawn from the third rather than the first survey year because housing satisfaction was not assessed in the first survey year.

7. Research suggests that doubling-up often reflects an unstable housing situation and can precede homelessness (Wright et al. 1998). However, it is possible that for some WES respondents, doubling-up reflects a voluntary transition rather than a forced or involuntary transition. For example, a respondent may choose to move into the apartment of a friend or family member to help share expenses. Similarly, frequent mobility may not always reflect involuntary changes in residence. It is likely that these measures contain some respondents who do not experience their transition as involuntary, and therefore their inclusion in the data represents an overestimate of these forms of housing instability.

homeowners if they own their home in the survey year preceding a move or nonmove and in the current survey year and as steady renters if they rent their home in the prior and current survey years. Similarly, respondents are coded as having steady housing satisfaction if they report satisfaction with housing in the prior and current survey year and as having steady housing dissatisfaction if they report dissatisfaction with housing in the prior and current survey years.

EMPIRICAL RESULTS

THE PREVALENCE AND CORRELATES OF MOBILITY

Table 1 shows the extent of residential mobility among Women's Employment Study respondents, and it compares how positive and negative non-movers and movers differ with respect to life-cycle and demographic characteristics, personal and household problems, and housing and neighborhood problems. Significance levels refer to the statistically significant differences between all stayers and movers (cols. 2 and 3), satisfied and dissatisfied non-movers (cols. 4 and 5), and dissatisfied and satisfied movers (cols. 6 and 7).

Table 1 shows that mobility is common for WES respondents. Approximately 45 percent of the respondents moved between survey years, a 2-year period, on average. Most nonmovers and movers are satisfied with their current housing circumstances. Approximately 77 percent of nonmovers report satisfaction with their current housing circumstances, while 23 percent of nonmovers report dissatisfaction. Among movers, 76 percent report housing satisfaction following a move, and 24 percent report dissatisfaction with housing following a move.

Table 1 also presents descriptive characteristics for the groups. The first column shows that in the previous survey year, the average WES respondent is 33 years old and African American and has two children. In the survey year preceding observation of a move/nonmove, 18 percent of the women are married, and 21 percent are cohabiting as unmarried partners. Respondents worked approximately 70 percent of the months across survey years, but they also experienced an array of work-related problems, including job loss (11 percent), low educational attainment (30 percent had less than a high school degree in 1997), and human capital barriers (26 percent reported low work experience or skills in 1997). In the prior year, most respondents rent rather than own their home, but a sizable minority is made up of homeowners (29 percent). Approximately 18 percent of women state

that they report their income each year to determine the cost of a rental unit, a variable that serves as a proxy for receipt of housing assistance in this analysis.⁸

Physical and mental health problems are common among WES respondents. In the previous survey year, 54 percent of respondents report physical limitations or poor physical health, and 33 percent meet the diagnostic screening criteria for major depression, posttraumatic stress disorder, social phobia, or generalized anxiety. A small percentage of respondents report hard drug use (3 percent) or domestic violence (13 percent). Sizable minorities experience housing problems in the prior year. Twenty-eight percent of respondents have a housing affordability problem, meaning that they pay more than 30 percent of income on rent. Thirty-eight percent report two or more problems with housing quality, and 20 percent report problems with neighborhood safety. Twenty-three percent experienced prior dissatisfaction with current housing circumstances.

The second and third columns of table 1 show that nonmovers differ from movers with respect to demographic and employment-related characteristics, housing tenure and assistance, mental health problems, and housing affordability. On average, movers are younger than stayers (32 years compared to 34 years, $p < .01$), and they are less likely to be married (15 percent of movers are married compared to 20 percent of stayers, $p < .05$). Movers are less advantaged than stayers with respect to employment and personal problems. Respondents who move are more likely than respondents who do not move to report job loss (13 percent compared to 10 percent, $p < .05$), low educational attainment (36 percent of movers compared to 26 percent of stayers, $p < .01$), and higher levels of mental health problems (38 percent of movers compared to 30 percent of stayers, $p < .01$), domestic violence

8. While an imperfect measure of housing assistance, this survey question shows the greatest correspondence with actual receipt of housing assistance in previous analysis using the WES data. Using data from the 1998 survey year, Mary Corcoran and Colleen Heflin (2003) find that 118 WES renters state that they report their income to set the rent, while 373 renters state that they do not. Eighty-four percent of these responses ($N = 412$) matched HUD administrative records. Of the 118 WES renters who state that they report their income, 72 actually received housing assistance, and 46 did not, yielding a match rate of 61 percent. Given the importance of housing assistance in facilitating voluntary moves and protecting against housing instability, the measure is included in the analysis despite the fact that it imperfectly measures receipt of housing assistance. In the multivariate analysis, excluding the housing assistance variable does not significantly change the findings.

TABLE 1. Characteristics of Women's Employment Study Respondents in Prior Survey Year, by Category of Mover

	All (100%) (1)	All Stayers (55.1%) (2)	All Movers (44.9%) (3)	p-Level	Dissatisfied Stayers (23.4%) (4)	Satisfied Stayers (76.6%) (5)	p-Level	Dissatisfied Movers (23.7%) (6)	Satisfied Movers (76.4%) (7)	p-Level
Life-cycle and demographic characteristics:										
Age	33.1	34.2	31.9	***	33.2	34.5	*	31.3	32.0	
African American (%)	55.0	54.9	55.1		56.6	54.4		63.6	52.5	**
Married and living with spouse (%)	18.0	20.3	15.2	**	20.3	20.3		10.2	16.8	*
Cohabiting as unmarried partners (%)	20.7	20.6	20.8		18.9	21.1		25.4	19.4	
No. children in household	2.2	2.2	2.2		2.3	2.2		2.2	2.2	
Constraints and risk factors:										
Percent of months worked between survey years	69.6	69.7	69.4		67.9	70.3		66.6	70.3	
Job loss between survey years (%)	11.2	9.5	13.3	**	10.5	9.2		21.4	10.8	***
Low educational attainment (1997; %)	30.2	25.5	35.9	***	29.4	24.3		39.8	34.7	
Human capital barrier (1997; %)	26.3	25.6	27.2		28.0	24.8		33.1	25.3	*
Owned home (%)	29.0	38.6	17.0	***	32.2	40.5	*	18.6	16.5	

Received housing assistance (%)	17.9	19.8	15.6	*	21.0	19.4	16.4	15.3
Poor physical health (%)	53.7	54.4	52.8		65.0	51.2	55.9	51.9
Mental health problem (%)	33.2	29.7	37.5	***	38.5	27.1	39.8	36.8
Hard drug use (%)	3.0	2.6	3.4		4.2	2.1	7.6	2.1
Domestic violence (%)	12.9	9.2	17.4	***	13.3	7.9	23.7	15.5
Housing/neighborhood problems:								
Housing affordability problem (%)	27.8	25.1	31.0	**	25.5	25.0	31.0	31.1
Housing quality problem (%)	37.7	35.8	40.2		48.3	32.0	45.8	38.4
Unsafe neighborhood	20.3	19.1	21.7		26.1	17.1	23.7	21.1
Prior housing dissatisfaction (1999; %)	23.0	17.3	30.0	***	37.1	11.3	38.8	27.3
Months between survey years (%)	23.1	22.9	23.3	***	22.8	23.0	23.3	23.2
Observations	1,111	612	499		143	469	118	381

Source.—Women's Employment Study, 2001–3.

Note.—The p -values denote the significance of a difference of means test between stayers and movers (cols. 2 and 3), dissatisfied stayers and satisfied stayers (cols. 4 and 5), and dissatisfied movers and satisfied movers (cols. 6 and 7). In this table, independent variables that are measured in the first or third year of data collection contain 1997 or 1999 in the variable label, respectively, and variables that are measured in the current survey year and assess the period of time between the prior and current survey year contain the words “between survey years” in the variable label. All other independent variables are measured in the survey year immediately preceding a move.

* $p < .10$.

** $p < .05$.

*** $p < .01$.

(17 percent compared to 9 percent, $p < .01$), and housing affordability problems (31 percent compared to 25 percent, $p < .05$). Respondents who do not move, in contrast, have higher levels of homeownership and receipt of housing assistance: in the previous survey year, 39 percent of stayers owned their home compared to 17 percent of movers ($p < .01$), and 20 percent received housing assistance compared to 16 percent of movers ($p < .10$).

The fourth through seventh columns compare dissatisfied and satisfied stayers and then dissatisfied and satisfied movers. The fourth and fifth columns show that although dissatisfied stayers are slightly younger than satisfied stayers, both groups of stayers report similar rates of marriage and cohabitation, and they have comparable levels of work activity and job loss. While few differences emerge with respect to demographic and employment-related characteristics, large and statistically significant differences exist with respect to personal and housing problems. Dissatisfied stayers are more likely than satisfied stayers to experience health problems and domestic violence: nearly 65 percent of dissatisfied stayers report a physical health problem compared to 51 percent of satisfied stayers ($p < .01$), 39 percent report a mental health problem compared to 27 percent of satisfied stayers ($p < .01$), and 13 percent experience domestic violence compared to 8 percent of satisfied stayers ($p < .05$).

In addition, dissatisfied stayers report statistically significantly higher rates of housing quality problems (48 percent compared to 32 percent of satisfied stayers, $p < .01$), neighborhood safety problems (26 percent compared to 17 percent, $p < .05$), and prior housing dissatisfaction (37 percent compared to 11 percent, $p < .01$). Dissatisfied stayers are also less likely than satisfied stayers to be homeowners (32 percent own their home in the prior survey year compared to 41 percent of satisfied stayers, $p < .10$).

A slightly different set of factors distinguishes dissatisfied and satisfied movers. Among movers, there are more differences with respect to demographic and employment characteristics. Dissatisfied movers are more likely than satisfied movers to be African American (64 percent compared to 53 percent of satisfied movers, $p < .05$), and they are less likely to be married in the previous survey year (10 percent compared to 17 percent of satisfied movers, $p < .10$). Relative to respondents who are satisfied following a move, those who are dissatisfied report higher rates of job loss (21 percent compared to 11 percent of satisfied movers, $p < .01$) as well as human capital barriers (33 percent compared to 25 percent of satisfied movers, $p < .10$). Health problems are common for both groups of movers. Dissat-

isfied movers report higher rates of drug use (8 percent report use of hard drugs compared to 2 percent of satisfied movers, $p < .01$) and domestic violence (24 percent report violence between survey years compared to 16 percent of satisfied movers, $p < .05$). With the exception of differences in prior housing dissatisfaction, positive and negative movers do not differ significantly with respect to the incidence of housing and neighborhood problems experienced in the survey year preceding a move.

The next part of the analysis uses multivariate analyses to assess the extent to which each characteristic helps explain unique variation in the dependent variable. Table 2 presents regression coefficients and robust standard errors for a multinomial logistic regression of type of mobility on the set of individual and household characteristics. The columns show the relationship between mobility and the set of characteristics relative to a common alternative. In columns 1–3, the comparison group consists of satisfied stayers; in column 4, the comparison group consists of satisfied movers. The regression model controls for the number of months between survey years and prior housing satisfaction.

The first and second columns compare satisfied and dissatisfied movers to satisfied stayers. These columns show that younger age and previous dissatisfaction with housing increase the likelihood of being a dissatisfied mover or a satisfied mover relative to being a satisfied stayer. The first column shows that relative to satisfied stayers, dissatisfied movers are more likely to report a job loss between survey years, use hard drugs in the prior survey year, and have housing quality problems in the prior survey year. The second column shows that satisfied movers are less likely than the comparison group to be African American and more likely to have low educational attainment. For both negative and positive movers, homeownership and receipt of housing assistance decrease the likelihood of mobility, and mental health problems and domestic violence increase the likelihood of mobility, relative to those who do not move and are satisfied with their housing.

Columns 3 and 4 compare positive stayers with negative stayers and positive movers with negative movers. Column 3 shows the relationship between being a dissatisfied stayer and the set of independent variables, relative to being a satisfied stayer. Those who do not move and express dissatisfaction with their housing circumstances are younger, more likely to report problems with physical health, and more likely to report problems with housing quality, relative to those who are satisfied and do not move.

TABLE 2. Multinomial Logistic Regression Coefficients and Standard Errors for the Regression of Mobility on Individual and Household Attributes

	Dissatisfied Mover (Relative to Satisfied Stayer) (1)	Satisfied Mover (Relative to Satisfied Stayer) (2)	Dissatisfied Stayer (Relative to Satisfied Stayer) (3)	Dissatisfied Mover (Relative to Satisfied Mover) (4)
Life-cycle/demographic characteristics:				
Age	-.071*** (.019)	-.051*** (.012)	-.036** (.015)	-.020 (.018)
African American	.101 (.279)	-.374** (.170)	.007 (.249)	.474* (.250)
Married and living with spouse	-.413 (.386)	-.023 (.236)	.116 (.337)	-.390 (.387)
Cohabiting as unmarried partners	.032 (.301)	-.155 (.207)	-.079 (.291)	.186 (.286)
No. children in household	-.109 (.082)	-.058 (.067)	-.067 (.079)	-.051 (.082)
Constraints and risk factors:				
Percent of months worked between survey years	-.192 (.348)	.028 (.225)	-.076 (.319)	-.220 (.341)
Job loss between survey years	.794*** (.300)	.056 (.253)	-.006 (.357)	.738** (.300)
Low educational attainment (1997)	.332 (.281)	.350* (.185)	.056 (.272)	-.018 (.257)
Human capital barrier (1997)	.331 (.294)	-.030 (.201)	.119 (.282)	.362 (.266)
Owned home	-1.111*** (.304)	-1.563*** (.209)	-.382 (.270)	.452 (.307)

Received housing assistance	-.844** (.342)	-.888*** (.212)	-.184 (.295)	.044 (.329)
Poor physical health	-.134 (.256)	-.161 (.162)	.462** (.226)	.027 (.249)
Mental health problem	.540** (.255)	.411** (.168)	.236 (.231)	.129 (.252)
Hard drug use	.906* (.538)	-.452 (.525)	.258 (.631)	1.358** (.556)
Domestic violence	1.019*** (.320)	.618** (.259)	.345 (.353)	.402 (.278)
Housing and neighborhood problems:				
Housing affordability problem	.114 (.266)	.136 (.177)	-.020 (.258)	-.022 (.259)
Housing quality problem	.518** (.228)	.260 (.172)	.497** (.232)	.258 (.217)
Unsafe neighborhood	-.231 (.297)	-.013 (.212)	.057 (.275)	-.218 (.271)
Prior housing dissatisfaction (1999)	1.704*** (.282)	1.070*** (.215)	1.479*** (.279)	.634*** (.229)
Months between survey years	.217*** (.066)	.151*** (.043)	-.035 (.046)	.065 (.068)
Constant	-4.464*** (1.662)	-1.642 (1.051)	.224 (1.253)	-2.822* (1.692)

Source.—Women's Employment Study, 2001–3.

Note.—Number of observations = 1,079. Robust standard errors are in parentheses.

* $p < .10$.

** $p < .05$.

*** $p < .01$.

Column 4 shows the relationship between being a dissatisfied mover and the set of independent variables, relative to being a satisfied mover. This column shows that relative to those who move and are satisfied with their housing circumstances, those who move and are dissatisfied are more likely to be African American, to have experienced a job loss between survey years, and to report hard drug use.

Because the regression coefficients reveal the direction but not the magnitude of the relationship between independent and dependent variables, table 3 shows how the probability of mobility or staying in place changes for a respondent who experiences one of the problems that is significant in the regressions but is otherwise similar to the average respondent. The table compares the predicted probability of mobility to the baseline probability of mobility for a typical respondent who is not African American and reports mean (or mode, for dichotomous variables) demographic and household characteristics; no housing problems; no health problems, substance abuse, or domestic violence; no employment barriers; and satisfaction with housing in the previous survey year. The first row of data shows the baseline probability, and the remaining rows show the percentage point change in probability for each of the characteristics.

The first row of table 3 shows that for the typical respondent, the baseline probability of being a satisfied stayer is 43 percent; the probability of being a dissatisfied stayer is 6 percent; the probability of being a satisfied mover is 46 percent; and the probability of being a dissatisfied mover is 5 percent. With respect to life-cycle and demographic characteristics, older age decreases the probability of being a satisfied mover while increasing the probability of being a satisfied stayer, but it produces only small changes in the probability of being a dissatisfied mover or stayer. The probability of being a satisfied mover decreases by 9 percentage points when a respondent is African American.

Job loss increases the probability that a respondent will be a dissatisfied mover from 5 percent to 10 percent, while decreasing the probability of all other forms of mobility. Low educational attainment increases the probability of satisfied mobility by 8 percentage points and decreases the probability of satisfied stability by a comparable amount. Although dissatisfied stayers and movers were more likely than satisfied stayers to experience physical housing problems, having a physical housing problem increases the probability of being a dissatisfied stayer or a dissatisfied mover by 2 percentage points each.

TABLE 3. Predicted Probabilities for Positive and Negative Mobility

	Satisfied Stayer (%) (1)	Dissatisfied Stayer (%) (2)	Satisfied Mover (%) (3)	Dissatisfied Mover (%) (4)
Baseline predicted probability	43.3	5.9	46.0	4.8
Percentage point change in predicted probability:				
Life-cycle and demographic characteristics:				
Older age (age = 37)	4.9	-.2	-3.9	-.7
African American	6.9	1.0	-9.3	1.4
Constraints and risk factors:				
Job loss between survey years	-3.4	-.5	-1.1	5.0
Low educational attainment	-7.7	-.8	7.7	.7
Owned home	30.7	1.0	-29.5	-2.1
Receipt of housing assistance	19.3	1.2	-18.6	-1.8
Physical health problem	1.8	3.9	-5.2	-.4
Mental health problem	-9.6	-.1	8.0	1.6
Hard drug use	3.7	2.4	-14.2	8.1
Domestic violence	-14.5	-.4	10.8	4.1
Housing and neighborhood problem:				
Housing quality problem	-7.5	2.2	3.4	1.9

Source.—Women's Employment Study, 2001–3.

Relationships between homeownership, housing assistance, and mobility are particularly large in magnitude. Being a homeowner, for example, increases the probability of being a satisfied stayer by 31 percentage points, and it decreases the probability of being a satisfied mover by 30 percentage points. Receipt of housing assistance leads to a 19 percentage point increase in the probability of being a satisfied stayer, and a 19 percentage point decrease in the probability of being a satisfied mover.

The results in table 3 suggest that personal and household characteristics lead to large changes in the probability of satisfied staying and moving and smaller changes in the probability of dissatisfied staying and moving. For example, older age and being African American increase the probability of being a satisfied stayer and decrease the probability of being a satisfied mover by comparable amounts, but the magnitude of the change in the probability for dissatisfied stayers and movers is small. The same pattern is observed for low educational attainment, homeownership, receipt of housing assistance, and mental health problems.

Yet there are some personal problems that generate larger changes in the probability of dissatisfied staying or moving, relative to the smaller changes

noted above. The second column shows that physical health problems and hard drug use increase the probability of being a dissatisfied stayer by 4 percentage points and 2 percentage points, respectively, representing two of the largest increases over the baseline probability for this category of mover. The fourth column shows that hard drug use leads to an increase over the baseline probability of dissatisfied mobility of 8 percentage points, from 5 percent to 13 percent. Finally, domestic violence increases the probability of mobility by 11 percentage points for satisfied movers and 4 percentage points for dissatisfied movers.

STABILITY AND INSTABILITY AMONG MOVERS AND NONMOVERS

The results reported above show that positive and negative nonmovers differ with respect to several demographic characteristics and personal and household problems. Most differences emerge between nonmovers and movers as a whole rather than between respondents who report dissatisfaction and those who report satisfaction with housing circumstances. While few individual characteristics distinguish dissatisfied from satisfied respondents in the multivariate analysis, it is possible that these respondents differ with respect to their mobility experiences. The final part of the analysis examines how positive and negative movers differ in the nature of their housing transitions, including transitions between renting and owning and in their satisfaction with housing.

Table 4 shows that with respect to housing instability, a minority of all WES respondents report evictions (7 percent), homeless episodes (5 percent), doubling-up to share expenses (18 percent), or frequent mobility (moving three or more times; 9 percent) between survey years (see col. 1 in table 4). Twenty-three percent of respondents reported experiencing one or more of these types of housing instability between survey years. The second and third columns show that few nonmovers experience instability and that the incidence of such problems is more pronounced among movers.

With respect to housing tenure, the first column of table 4 shows that 61 percent of WES respondents are steady renters, meaning that they rented their home in both the previous and current survey years. Twenty-two percent are steady owners, 10 percent transitioned from renting to owning, and 7 percent transitioned from owning to renting between survey years. As shown in columns 2 and 3, stayers are more likely than movers to be steady owners (36 percent of stayers owned their home in both years

TABLE 4. Incidence of Housing Instability, Housing Tenure Transitions, and Change in Housing Satisfaction, by Category of Mover

	All Respondents (100%) (1)	All Stayers (55.1%) (2)	All Movers (44.9%) (3)	Dissatisfied Stayers (23.4%) (4)	Satisfied Stayers (76.6%) (5)	Dissatisfied Movers (23.7%) (6)	Satisfied Movers (76.4%) (7)	p-Level
Housing instability (%):								
Eviction between survey years	7.4	.5	15.8	1.4	.2	24.6	13.1	***
Homeless episode between survey years	4.7	.2	10.2	.0	.0	13.6	9.2	***
Doubled-up to share expenses between survey years	18.0	2.0	37.7	2.8	1.7	53.4	32.8	***
Frequent mobility (3+ moves between years)	8.8	.0	19.7	NA	NA	28.0	17.1	***
One or more type of instability	22.8	2.5	47.7	3.5	2.1	61.9	43.3	***
Housing tenure transitions (%):								
Steady owner	21.9	35.6	5.0	30.1	37.3	2.5	5.8	*
Steady renter	60.9	56.5	66.3	64.3	54.2	73.7	64.1	*
Transition from renting to owning	10.2	4.9	16.6	3.5	5.3	7.6	19.4	***
Transition from owning to renting	7.0	2.9	12.0	2.1	3.2	16.1	10.8	***
Change in housing satisfaction (%):								
Steady housing satisfaction	62.9	69.1	55.2	NA	90.2	NA	72.4	***
Steady housing dissatisfaction	10.5	10.8	10.0	46.2	NA	42.7	NA	***
Transition from dissatisfied to satisfied	13.6	7.5	21.1	NA	9.8	NA	27.6	***
Transition from satisfied to dissatisfied	13.0	12.6	13.5	53.8	NA	57.3	NA	***
Observations	1,111	612	499	143	469	118	381	

Source.—Women's Employment Study, 2001–3.

Note.—The *p*-values denote the significance of a difference of means test between stayers and movers (col. 2), dissatisfied stayers and satisfied stayers (col. 3), and dissatisfied movers and satisfied movers (col. 4). NA = not applicable.

* *p* < .10.

** *p* < .05.

*** *p* < .01.

compared to 5 percent of movers, $p < .01$). Perhaps unsurprisingly, movers are more likely than stayers to experience a transition from renting to owning (17 percent of movers compared to 5 percent of stayers, $p < .01$) or from owning to renting (12 percent of movers compared to 3 percent of stayers, $p < .01$).⁹

A minority of respondents experienced changes in housing satisfaction between survey years. Column 1 of 4 shows that the majority of WES respondents (63 percent) remained satisfied with their housing arrangements across survey years. Columns 2 and 3 show that stayers are more likely than movers to report steady housing satisfaction (69 percent of stayers report steady satisfaction, as compared to 55 percent of movers, $p < .01$). These columns also show that while similar percentages of non-movers and movers report either continued dissatisfaction or deteriorating satisfaction, movers are much more likely than stayers to report improvements in housing satisfaction: 21 percent of movers transitioned from dissatisfaction to satisfaction following a move, as compared to 8 percent of stayers ($p < .01$).

Columns 6 and 7 of table 4 show that despite limited differences with respect to individual and household characteristics, dissatisfied movers differ from satisfied movers with respect to both housing instability and housing tenure transitions. Relative to those who move and are satisfied with their housing circumstances, those who report dissatisfaction following a move are considerably more likely to experience an eviction (25 percent of dissatisfied movers compared to 13 percent of satisfied movers), a doubling-up episode (53 percent compared to 33 percent), or frequent moves (28 percent compared to 17 percent; all differences significant at $p < .01$). Satisfied movers are more likely than dissatisfied movers to transition from renting to owning their home (19 percent transitioned into homeownership, compared to 8 percent of dissatisfied movers, $p < .01$).

DISCUSSION

The WES data reveal high rates of residential mobility among low-income mothers between the 2 final years of the panel study. While levels of mobility

9. Small percentages of stayers transition from renting to owning, or from owning to renting, without experiencing a move. This may reflect rent-to-own housing arrangements or the transfer of a home mortgage between family members within a single household.

among WES respondents are slightly lower than those found in other studies during the same period (Bloom et al. 2000, 2002), close to half of WES families moved between survey years. The analysis provides evidence of positive residential circumstances among both nonmovers and movers; just over three-quarters of nonmovers and movers reported satisfaction with their current housing situation. A majority of respondents were satisfied with their housing in both survey years. In addition, one-fifth of respondents owned their home in both survey years, and 10 percent transitioned from renting to owning between survey years.

While there is evidence of positive residential transitions, the data also provide evidence of negative transitions. Nearly one-quarter of all movers report dissatisfaction following a move, and a comparable proportion of stayers report dissatisfaction in the absence of a move. Experiences of instability are common among movers. In contrast to previous research, fewer WES respondents experienced negative forms of mobility, as measured by housing dissatisfaction following a move. For example, while nearly 50 percent of movers in the Making Connections study are categorized as churning movers who report low incomes and experience few gains in housing or neighborhood quality following a move, just 24 percent of those who move in the WES are categorized as dissatisfied movers. This difference may stem in part from the fact that the Making Connections study used both objective and subjective measures to define groups of movers. Given that many WES respondents experience problems related to housing affordability and quality, it is likely that using such characteristics to define groups of movers would lead to a larger percentage of negative movers in the WES.

Several characteristics distinguish WES respondents who move from respondents who do not move. The multivariate analysis shows that relative to those who do not move and report satisfaction with their housing circumstances, those who experience positive and negative moves are younger and more likely to be homeowners. Young age and homeownership also distinguish movers and nonmovers in the general population. In the WES, movers are also more likely to experience such problems as low educational attainment, mental health problems, and domestic violence.

Movers are also less likely to report receipt of housing assistance. Housing assistance sharply increases the probability that a respondent will report satisfaction in the absence of a move. This suggests that housing assistance may play a role in helping families remain in satisfactory hous-

ing arrangements. Housing assistance also decreases the probability of mobility, and the magnitude of the decrease is quite large for satisfied movers (19 percentage point change). Such findings are consistent with existing research that finds housing assistance is associated with decreased mobility over time (Wood et al. 2008). The fact that housing assistance decreases the probability of both satisfied and dissatisfied mobility may reflect the fact that housing assistance creates incentives and provides the resources needed for satisfied respondents to stay in place, and this choice may be more constrained for those who do not receive assistance. Alternatively, housing assistance may be acting as a proxy for unmeasured characteristics of respondents, such as individual motivation or a personal taste for changing housing circumstances.

Relative to the differences between nonmovers and movers, fewer characteristics distinguish positive and negative movers and nonmovers. African American race, job loss, and hard drug use are the only characteristics that distinguish negative movers from positive movers in a multivariate framework. While the probability that a respondent will experience a negative move is relatively small, job loss and hard drug use more than double the probability that a respondent will experience this type of move (from 5 percent to 10 percent for job loss and from 5 percent to 13 percent for hard drug use). The significant association between job loss and negative mobility also raises the possibility that negative forms of mobility may have become more pronounced in recent years due to the recession and high levels of unemployment within low-income communities. A slightly different set of characteristics distinguishes stayers from one another. Negative stayers are younger than positive stayers, and they are statistically significantly more likely to experience a physical health problem and poor-quality housing. In particular, the relationship between physical health problems and being a dissatisfied stayer is large and statistically significant. While future research is necessary to assess causal relationships, this suggests that physical health problems may play a role in shaping patterns of mobility among low-income families.

Finally, the data show that positive and negative movers differ with respect to their experiences of housing instability as well as transitions between renting and owning. Dissatisfied movers are significantly more likely to experience housing instability in the form of evictions, doubling-up, and frequent mobility. Satisfied movers are also significantly more likely to transition into homeownership between survey years.

There are several limitations of the current study. First, the data used in this study are drawn from a single sample of low-income mothers in Michigan. It is possible that the relationships identified in this analysis differ for other regional or national samples. While past analyses find that the WES sample compares favorably to national samples with respect to basic demographic characteristics (Seefeldt and Orzel 2005), WES respondents face lower housing costs and affordability problems than many low-income families nationwide. It is likely that the findings of this analysis are most generalizable for families living in urban areas with similar rates of affordability. In higher-cost areas, housing problems related to affordability and quality may emerge as more powerful predictors of both positive and negative forms of mobility.

Second, although the current analysis controls for multiple observed forms of heterogeneity among respondents, some differences remain unobserved. It is possible that these unobserved forms of heterogeneity affect whether respondents experience positive and negative moves, thereby biasing the estimated coefficients. The nature of the WES panel data does permit the inclusion of respondent fixed effects, which would control for unobserved differences between respondents. However, fixed effects were not included for the following reasons.

To estimate model parameters, fixed effects models use information from respondents who experience a change in the dependent and independent variables, but they do not use information from respondents for whom the dependent variable does not change or from independent variables that do not vary over time. In the WES, many respondents do not experience a change in the dependent variable, making statistical significance harder to assess. Omitting time-invariant variables is also problematic, because it is likely that a respondent's likelihood of experiencing a positive or negative move is influenced both by characteristics that change over time, such as health problems, as well as those that do not change over time, such as race. Little is known about the characteristics that distinguish positive and negative nonmovers and movers, and therefore a modeling approach capable of identifying systematic differences in both the stable and time-varying characteristics of groups of movers was preferred. However, the modeling approach is not capable of controlling for unobserved forms of heterogeneity. Therefore, although the analysis provides descriptive insights regarding the correlates of residential mobility, these relationships should not be interpreted as causal.

CONCLUSION

This article fills a gap in the literature by examining an important and underexplored indicator of well-being among families in the post-welfare reform era, housing stability and satisfaction. The analysis shows that considerable heterogeneity exists between groups of movers and stayers and, to a lesser extent, within such groups. In the WES, most movers and stayers reported satisfaction rather than dissatisfaction with current housing circumstances. Yet experiences of instability are prevalent among those who experience mobility. While the incidence of evictions, homeless episodes, doubling-up, and frequent mobility is low when such experiences are considered individually, when they are grouped together it is clear that a large number of low-income families experience such problems.

Furthermore, slightly less than one-quarter of respondents reported dissatisfaction with housing circumstances following a move, suggesting that mobility may be problematic for a nontrivial number of families. The analysis also indicates that a subset of low-income families do not move despite being dissatisfied with their housing circumstances. The inability to move out of poor-quality housing or neighborhoods is a policy problem that deserves attention, particularly given the fact that families who are constrained in their mobility may be less likely to come into contact with agencies that provide assistance locating affordable and adequate quality housing.

In the analysis, homeownership and housing assistance sharply increase the probability that a respondent will report satisfaction in the absence of a move. These characteristics help distinguish those respondents who move from those who do not move. While it is not possible to rule out the possibility that homeownership and housing assistance are acting as proxies for unmeasured characteristics of respondents, the finding that housing assistance is associated with satisfaction in the absence of a move suggests that housing assistance helps families remain in housing that is considered satisfactory.

Finally, the analysis identifies a small set of factors that distinguish families at risk of experiencing a negative move or at risk of remaining in housing that is considered unsatisfactory. Respondents who report dissatisfaction have higher levels of physical health problems relative to those who report satisfaction. The high level of physical health problems among this population is noteworthy, and future research might investigate the causal relationship between health problems and movement into or out of poor-

quality housing or neighborhoods. Strong relationships also exist between job interruptions and housing mobility. From a policy perspective, this suggests that those in unstable employment situations may be at higher risk for experiencing negative mobility, and they may have greater need for short-term housing assistance to address the consequences of employment interruptions. Understanding when and why low-income families move and do not move is critical for improving policies that promote positive residential transitions while protecting against negative forms of mobility.

APPENDIX A

TABLE A1. Dependent and Independent Variables, Descriptions and Means/Proportions

Question Content		Mean/ Percent
Dependent variable:		
Dissatisfied stayer	Respondent did not move between survey years and was “somewhat dissatisfied” or “very dissatisfied” with housing situation in current survey year (measured in year <i>t</i>)	12.9
Satisfied stayer	Respondent did not move between survey years and was “somewhat satisfied” or “very satisfied” with housing situation in current survey year (measured in year <i>t</i>)	42.2
Satisfied mover	Respondent moved between survey years and was “very satisfied” or “somewhat satisfied” with housing situation in current survey year (measured in year <i>t</i>)	34.3
Dissatisfied mover	Respondent moved between survey years and was “very dissatisfied” or “somewhat dissatisfied” with housing situation in current survey year (measured in year <i>t</i>)	10.6
Life-cycle and demographic characteristics:		
Age	Respondent age in previous survey year (mean age)	33.1
African American	Respondent is African American (measured in 1997)	55.0
Married and living with spouse	Married and living with spouse in previous survey year	18.0
Cohabiting as unmarried partners	Cohabiting as unmarried partners in previous survey year	20.7
Number of children in household	Number of care-given children in household in previous survey year	2.2
Personal constraints and risk factors:		
Percent of months worked between survey years	Percentage of months worked by respondent between survey years (measured in year <i>t</i>)	69.6

TABLE A1. (continued)

Question Content		Mean/ Percent
Job loss between survey years	Respondent reported loss of job between survey years (measured in year <i>t</i>)	11.2
Low educational attainment	Less than a high school education (measured in 1997)	30.2
Human capital barrier	Low work experience (worked fewer than 20% of years since age 18) or skills (knows fewer than four of nine job skills) (measured in 1997)	26.3
Received housing assistance	Respondent answered "yes" to the following question in the previous survey year: Do you have to report the household's income to someone every year so they can set the rent?	17.9
Owned home	Respondent owned home in previous survey year	29.0
Poor physical health	Respondent met age-specific physical limitation or self-reported fair/poor health in the previous survey year	53.7
Mental health problem	Respondent met diagnostic screening criteria for posttraumatic stress disorder, depression, social phobia, or generalized anxiety disorder in the previous survey year	33.2
Hard drug use	Respondent reported use of cocaine, crack, stimulants, heroin, or other hard drugs in the previous survey year	3.0
Domestic violence	Respondent reported severe abuse between survey years (measured in year <i>t</i>)	12.9
Housing/neighborhood problems:		
Housing affordability problem	Respondent's self-reported monthly housing costs divided by gross monthly household income is greater than 30% in the previous survey year	27.8
Housing quality problem	Respondent reported at least two of the following six problems in the previous survey year: a leaky roof or ceiling; a toilet, hot-water heater, or other plumbing that does not work right; rats, mice, roaches, or other insects; broken windows; a heating system that does not work properly; and exposed wires or other electrical problems	37.7
Unsafe neighborhood	Respondent reported living in an "unsafe" or "very unsafe" neighborhood in the previous survey year	20.3
Prior housing dissatisfaction	Respondent reported being "very dissatisfied" or "somewhat dissatisfied" with housing situation (measured in 1999)	23.0
Months between survey years	Total number of months between survey interviews (measured in year <i>t</i> ; mean)	23.1

Source.—Women's Employment Study, 2001–3.

Note.—Total person-year observations = 1,111. Unless otherwise indicated, figures in the right-hand column are percentages.

NOTE

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Book Reviews

Everyday Ethics: Voices from the Front Line of Community Psychiatry. By Paul Brodwin. Berkeley: University of California Press, 2013. Pp. 233. \$65.00 (cloth); \$29.95 (paper).

“How should we bear responsibility for the most vulnerable among us?” (203). Paul Brodwin’s concluding question probes the key ethical issue for those concerned about public and social service delivery to those in desperate need of assistance. In the face of deinstitutionalization, which brought about the closure of mental health institutions and a neoliberal rollback of welfare state funding for public services, the question has become more acute. But rather than focus on the policy and politics of these transformations, Brodwin investigates the frontline workers who are charged with the task of caring for inner-city community psychology clients on our behalf.

Paul Brodwin gives an ethnographic account of service delivery at the pseudonymous Eastside Services, where case managers and supervisors struggle to provide Assertive Community Treatment (ACT) to clients, people “with decades of homelessness, debilitating symptoms, and long histories of imprisonment and hospitalization” (3). The case managers visit these clients in their home to, among other things, distribute payments and ensure treatment, including the ingestion of prescribed pharmaceuticals. Brodwin accompanies them as they collectively negotiate the obstacles to ACT principles and client care that arise in everyday practice, observing both their community-based interactions with clients, as well as their staff meetings with coworkers, supervisors, and the ACT psychiatrist. Brodwin supplements these observations with quotations from his interviews with Eastside Services case managers and supervisors in which they reflect on their patterns of moral decision making in the course of their workdays.

Brodwin notes that Community Support Programs (CSP) for those experiencing mental health challenges began to arise early in the days of deinstitutionalization. At this time, service providers scrambled to ensure that their clients found secure lodging, fed themselves, received their med-

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ications, and remained in contact with their psychiatrists. ACT arose as one popular variation of CSP. A baseline assumption for ACT is that “mental illnesses are brain diseases: discrete, organic malfunctions, each with its characteristic signs, symptoms, course, disabilities, and appropriate medications” (43). Based on this assumption, ACT case managers deliver community-based public services to clients with mental illnesses with an emphasis on keeping them in treatment and on their medications. In the process of doing so, they end up confronting many crises that demand innovation and adaptation beyond the specific instructions offered by their ACT manuals. To name a few, clients regularly refuse their medications; disappear when they are meant to meet for their ACT appointments; resent the control Eastside Services has over their money; and place themselves in danger through self harm, drug use, and exposure to criminal victimization. In the face of such challenges, case managers must negotiate the tensions of care and control while “the outlooks and routines of psychiatry, social work, law, and the public welfare system bump up against each other” (52).

Brodwin shows that it is primarily within staff meetings that the ACT program imposes its logic on case managers’ interactions with their clients, as the ACT team psychiatrist plays a dominant role in these meetings and often encourages case managers to set aside their personal experiences with the client and instead to focus on the signs and symptoms most interesting to biopsychiatry and most crucial to ensuring clients’ “pharmaceutical compliance” (59) and “stability” (66) within the community. Case managers thereby learn to reframe their interactions with clients according to the work ethos and limited goals of the ACT program. As one supervisor argues, in response to a case manager upset that her client has not shown more progress: “Case managers have to learn that simply keeping people stable is a therapeutic accomplishment. Even if they don’t get better. It’s like someone with a heart condition or bad cholesterol. If you keep them from having a heart attack, then you’re doing something good” (68). As with other areas of public service provision, such as the criminal justice system where notions of rehabilitation have been largely forsaken for a logic of risk management, so too have those working in community psychiatry been asked to adjust their expectations to crisis control and pacification rather than to seek transformative personal change for their clients.

Brodwin also demonstrates how interactions between case managers and clients are shaped by specific technologies that impose upon the case

manager's "everyday ethics": treatment plans, representative payeeships, and commitment orders are the respective topics of chapters 3–5. The treatment plan, for example, is a 5- to 8-page record of the client's problems, objectives, and recommended treatment. Through this tool, the client, in all his or her complexity, is translated into the language of psychiatric professional norms. Moreover, the treatment plan imposes a specific narrative on case manager's interactions with clients, since, as Brodwin states, "the very act of writing treatment plans demands a story of progress" (92) in which the client is conceived to be making incremental improvements.

When clients refuse to abide by the treatment plan and regress rather than progress, two other technologies are brought to bear. For many East-side Services clients, the agency holds a representative payeeship on their behalf. This means that the agency receives all of their money and disburses it as they see fit, often with the goal of controlling the client's behavior by controlling her or his access to money. In the most extreme cases, case managers can also seek commitment orders for clients, forcing them into psychiatric hospitalization for noncompliance, usually for not taking medication. Yet despite the coercive technologies that case managers introduce into the lives of their clients, they do not engage in a great deal of ethical reflection on their participation in these intrusive strategies of social control. Instead, according to Brodwin, they exercise an "everyday ethics"—in other words, an ethics calibrated to "the close-in landscape of practice" (5)—that is "engineered into the very tools for work" (179). Their ethical reflections are in large part set by the demands of the treatment plan and the resources of representative payeeship and commitment orders that they have at their disposal. Put differently, they become so attuned to the technological ethics involved in correctly utilizing these coercive tools that they often do not think to interrogate the tools themselves.

One of the most compelling aspects of the book, however, is not its critical insight into how programs and dominant practices shape the ethos of frontline work in community psychiatry but rather the ways in which Brodwin illustrates the complexity of everyday ethics among case managers. These individuals do not universally succumb to an ethic of stability and pharmaceutical compliance but also at times question it, or find novel ways of making sense of what they do on a day-to-day basis. Most interesting here are people like Neil Hansen and Carl Heiser, who for reasons related to their professional and personal biographies, reflect critically on what the ACT program demands of them and seek to offer moments of improvised care or therapy, despite the fact that their ability to do so is

often severely limited by factors such as caseload and supervisor oversight. Neil Hansen, for example, questions how he is encouraged by his supervisors to keep his client medication compliant by taking him to buy junk food whenever they have a meeting. The client's obesity leads Neil to worry beyond the everyday ethics of client stability to his moral responsibility if his client has a stroke (77–78).

The structure of the book wisely disregards some academic convention, inviting the reader into the topic through brief discussion of everyday ethics and the broader context of the deinstitutionalization of mental health services but then moving quickly into the ethnographic case study and the compelling narratives drawn from Brodwin's observations of East-side Services and interviews with ACT team members. This means that the literature review and conceptual framework for the study are postponed until the final chapter, but the author demonstrates theoretical sophistication by seamlessly weaving insights from theorists such as Pierre Bourdieu, Michel Foucault, and Bruno Latour into the narrative without making them the focus of the study or elevating their voices above those of the case managers and other team members. These techniques allow the ethnographic data to speak for itself before, in the final chapter, it is placed into conversation with literature-based theoretical arguments drawn from the field of bioethics. This is quite effective, as the higher-order theoretical concerns about and criticisms of ACT are mediated by the practical experience and skills-based knowledge of the ACT providers. In so doing, the limits and blind spots of each approach, one theoretical and the other practice-based, are revealed, as are some of the assumptions that make the ethics of care practicable.

The writing and structure of the book make it very accessible, and it is of potential interest not just to ethnographers and those who study helping agencies but also to practitioners and general readers. At times I found myself wanting Brodwin to draw stronger and further connections between the broader processes and circulating discourses of neoliberalism, which authors such as Loic Wacquant (*Punishing the Poor: The Neoliberal Government of Social Insecurity* [Durham, NC: Duke University Press, 2009]) and Joe Soss, Richard C. Fording, and Sanford Schram (*Disciplining the Poor: Neoliberal Paternalism and the Persistent Power of Race* [Chicago: University of Chicago Press, 2011]) critique as the source of changing social and public service practices, suggesting they serve as much to discipline and confine the poor and needy as they do to provide them with care. Yet, it is hard to find fault with Brodwin on this score, since his project is

not to confirm or deny the perspectives of such authors, or to describe macro- or meso-level structural transformations, but rather to show the everyday texture of community psychiatric case management and how it operates in local circumstances. This is an important contribution in and of itself, making this a worthwhile book for not only those interested in the ethics of community psychiatry but for all who have concerns about the ways in which we care for those among us who are most vulnerable and whose circumstances are most precarious. Indeed, it is an important reminder that responsibility for those in need belongs not only to overtaxed and strictly regulated case managers but also to all of us.

Moreover, Brodwin uses his ethnographic observations to consider policy innovations that are often upheld as answers to ethical challenges in community health. Here, so-called Ulysses contracts, through which a client in a remission stage might give consent to more extreme forms of intervention in future times of serious mental illness, are interrogated. Such contracts are appealing to some medical ethicists because they empower the client to give permission for serious interventions to be taken in times of mental health crisis, albeit prior to the onset of episodes during which the client is in no position to give free and informed consent. However, Brodwin draws our attention to how such contracts, through their assertion of generic norms that treat all potential mental circumstances as uniform, attempt to purify artificially the ethical relationship between client and case manager, rather than demand that case managers contend with the moral conditions of their work in a situation-specific manner. However, such contention is a necessary practice if they are to come to a “partial consciousness of the social context, how they have adapted to it, and their room for maneuver within it” (200). Through such interventions, Brodwin discloses the limitations of ACT and similar programs and directs the reader away from facile answers to complex and contextual ethical questions.

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Propaganda in the Helping Professions. By Eileen Gambrill. New York: Oxford University Press, 2012. Pp. 584. \$67.50 (cloth).

Eileen Gambrill is on the warpath against propaganda, quackery, and faulty thinking. This is familiar territory for Gambrill, whose past research

centers on critical thinking and social work practice (e.g., *Critical Thinking for Helping Professionals: A Skill Based Workbook*, with Len Gibbs, 3rd ed. [Oxford University Press, 2009]). In this book, Gambrill broadens her scope from social work to include all the helping professions, including medicine and psychology. She examines different types of propagandist thinking and the factors underlying their creation, puzzles over the reasons for the human proclivity to believe faulty arguments and to stubbornly hold on to incorrect knowledge, and provides an extended treatise on antidotes to sloppy thinking that decrease the likelihood of falling for propaganda.

In this book Gambrill identifies several types of presentations or arguments in the history of medicine, some of which are frankly fraudulent and some unconsciously biased, but all of which encourage the consumer (professional or lay) to draw the wrong conclusions. Her extensive examples include both familiar and obscure medical treatment propaganda, from bloodletting with leeches, to nineteenth-century elixirs with claims to cure maladies from constipation to so-called nerves, from scurvy to pimples. These are amusing caricatures, but the analysis of contemporary potions, in the guise of the products of today's "Big Pharma" (41) industry, will strike a nerve with helping professionals. Viagra, Abilify, statins, and medications for blood pressure control are just a few of today's blockbuster medications that come under question concerning the strength of the evidence on which they are prescribed. Gambrill also casts doubts on health prevention claims from breast cancer screening to common preventive treatment of diabetes, blood pressure, and cholesterol. In showing how narrow the statistically significant success margins actually are, or how removed the outcome indicators such as lower blood cholesterol are from the ultimate outcome of extending life, Gambrill makes cogent points about how important it is to know exactly what the statistics show. She encourages professionals and patients alike to inquire about what is not shown or highlighted. But, though knowledge about the effectiveness of drugs is a laudable goal, there are legitimate debates on some topics about which Gambrill is too skeptical. For example, there have been many population studies showing that controlling blood pressure and reducing blood cholesterol levels result in lower incidence of myocardial infarction over a given period of time. Similarly, the social anxiety and depressive disorders that Gambrill attacks as overmedicalized and mostly normal human experiences are very distressing to some of the people who are diagnosed with

them and are very real in the eyes of some good critically thinking professionals. Gambrill also casts doubt on the need and relevance of social problem prevention programs, including those for child maltreatment. Thus Gambrill's assertions are likely to spark rousing debate among professionals.

Known for thoroughness and attention to detail in her previous writings, Eileen Gambrill does not disappoint in this book. She exposes and attacks with relish the actors, motivations, and strategies of the propagandists. These perpetrators of propaganda include medical, psychological, or social clinicians who make sweeping claims about the results of their therapy and who do not offer a balanced presentation to honestly inform patient choice. They also include businesses such as drug companies and medical device companies; private practices and hospitals who want the consumer to use their products; advertisers whose job it is to increase sales; lobbyists who want to influence their targets to espouse a particular point of view, often tied to political agendas; and even scientists who become so committed to the intervention they have developed (and sometimes make money from) that they lose the healthy skepticism of scientific work. The results of this propaganda range from harm, such as side effects of medications that induce other health problems or even cause deaths, to ineffective or inefficient treatment outcomes.

Gambrill exposes the strategies of propagandists, which echo the familiar tenets of uncritical thinking. Flawed logic, appealing to emotions, ad hominem attacks, and faulty premises are all familiar to the readers of Gambrill's previous books. Chapter 3, "Interactions among the Players," is an especially thorough and insightful treatise on the complex webs of mutual benefit that underlie what we have come to know as conflict of interest (COI). Conflict of interest is a major focus of medical education and science of today, having evolved from little to no awareness in less than 10 years. In the past several years awareness has grown about lax conflict of interest policies and how these affect medical research. Medical schools were shown to have inadequate policies and inadequate enforcement of their policies.¹ Several exposes were published; cases at ma-

1. See Gardiner Harris, "Survey of Medical Schools Is Critical of Perks," *New York Times*, June 3, 2008, http://www.nytimes.com/2008/06/03/health/03conflict.html?_r=0; and Institute of Medicine of the National Academies, "Conflict of Interest in Medical Research, Education and Practice," consensus report, April 1, 2009, <http://www.iom.edu/Reports/2009/Conflict-of-Interest-in-Medical-Research-Education-and-Practice.aspx>.

jor medical schools including Stanford and Harvard were investigated and in some cases prosecuted.² In 2011 the National Institutes of Health increased its conflict of interest reporting and management requirements for all research that it funds.³ In the meantime, many medical schools have adopted more rigorous COI policies in medical education as well as in research. Medicine in fact is transforming as a result of the awareness of how much financial conflict of interest affects what has been identified as effective scientific treatment of various diseases.

Gambrill also illuminates the complex financial ties between the scientific enterprise and American business. These ties run deep in twentieth- and twenty-first-century America. The reason for political support for post-World War II investment in higher education and science was to boost the American economy. In fact, in the 1960s American higher education was criticized for not commercializing the scientific discoveries that the federal government funded. This was the goal underlying the Bayh-Dole Act of 1980, which provided approval and incentives to American universities to assist federally funded scientists in commercializing their discoveries, thus creating the web of mutual interests that exists today between business and science. Gambrill believes such a relationship, by its very nature, fosters propaganda over strong scientific method, even among well-trained and rigorous researchers.

Gambrill skewers medical science for conflicts of interest in claims of scientific findings. Conflict of interest has received much less attention in the helping professions such as psychology and social work, where it is rarely discussed. Gambrill exposes the power that conflicts of interest have, noting the increasing industry built around evidence-based practice in social work and psychology. Potential conflicts of interest exist when the social scientist creates a new evidence-based intervention that is commercialized by the creation of training programs, manuals, and measurement tools that are deemed necessary to preserve the fidelity of the treat-

2. See Duff Wilson, "Study Finds Conflicts among Panel's Doctors," *New York Times*, March 28, 2011, <http://www.nytimes.com/2011/03/29/health/29ethics.html>; Duff Wilson, "Harvard Medical School in Ethics Quandary," *New York Times*, March 2, 2009, <http://www.nytimes.com/2009/03/03/business/03medschool.html?pagewanted=all>; and Natasha Singer and Duff Wilson, "Debate over Industry Role in Educating Doctors," *New York Times*, June 23, 2010, <http://www.nytimes.com/2010/06/24/business/24meded.html>.

3. National Institutes of Health, "Financial Conflict of Interest: 2011 Revised Regulations," policy, <http://grants.nih.gov/grants/policy/coi>.

ment model. How are these conflicts of interest managed, and by whom? Even when there is no financial conflict of interest, such as when intervention and training materials are in the public domain and no financial incentive exists for their use, research repeatedly demonstrates that investigator allegiance to a treatment model inflates the effect size of the evaluation of that approach.⁴ In this case, personal beliefs and career and reputation advancement conflict with rigorous use of scientific principles to detect the true effects of the programs. This is especially likely in a field like social work, where blinded experiments are seldom used.

Gambrill eschews social construction. The term appears nowhere in the index and seldom in the text. But there is no denying that Gambrill is addressing social construction when she refers to the “grand narratives” (13) of a point in history, including that of twenty-first-century American society—the medicalization of most human problems. One question that is left unexamined in this book is whether and how the grand narratives of an era influence and bias the knowledge, even the research knowledge, that is created during that era. How does the medicalization of human problems fundamentally affect the knowledge that is created and how it is interpreted? Can the scientific method ever be completely free from the social construction of the problems investigated and the methods used to measure and study the topic of interest? Would the spiritual definitions of human problems by religiously inclined people in the Middle Ages and today be called “propaganda” by Gambrill? Consider the debilitating condition of schizophrenia. Research suggests that the condition is less debilitating in less developed societies. Is this a true effect on the illness, or is it a different social construction of the condition of schizophrenia in less developed societies as compared to Western societies in the twenty-first century? The fundamental difference between what is propaganda and what is a different social construction of a disease or a treatment is not considered even though the reader can think of many situations in which the distinctions are not so easy to draw.

One of the most interesting ideas in this book is Gambrill’s exploration of the human propensity to accept and perpetuate propaganda. Draw-

4. Munder, Thomas, Christoph Flückiger, Heike Gerger, Bruce E. Wampold, and Jürgen Barth, “Is the Allegiance Effect an Epiphenomenon of True Efficacy Differences between Treatments? A Meta-Analysis,” *Journal of Consulting and Clinical Psychology* 59, no. 4 (2012): 631–37.

ing on a sound review of cognitive science, chapter 11, “Appeal to Our Psychological Vulnerabilities,” provides a thoughtful and thorough taste of the vast body of cognitive psychology research, which in recent years has illuminated the importance of unconscious cognitive heuristics or shortcuts that we use to draw conclusions from the information around us. In brief, the reader will learn that humans have a strong propensity to swallow propaganda and overvalue their opinions, whether they are reached judiciously or through faulty reason. Thus, it is hard to dispossess most of us of what we believe to be true, whether or not it is actually true. In this chapter, Gambrell reviews the influences that are hardwired into the human psyche, ranging from social desirability, to obedience to authority, to bias-proneness. These render us gullible and stubbornly attached to irrational ideas. Of special interest and relevance are the “intelligence traps” (340) that are the product of our brains’ proclivity to use mental heuristics in lieu of methodical rational thinking. Intelligence traps involve shortcuts in thinking that lead to the wrong conclusion by bypassing one or more steps in a full, explicit logical and rational thought process. These mental heuristics lead to conclusions quickly but not always accurately.

In the helping professions, professors seldom discuss with their students this knowledge about human thinking and decision making and how it applies to clinical practice. The demands of clinical practice require quick responses in sometimes volatile situations, setting the stage for these intelligence traps. Given the advancement of cognitive science, this knowledge is extremely important for clinicians to be aware of; it will assist with their self-awareness and control of these hardwired bias tendencies, whether they are due to overgeneralization of one’s own experience (countertransference) or social learning (racial, gender, or other stereotypes). The reader who is curious to learn more about slow and deliberate thinking processes versus the quick mental shortcuts that all humans use regularly may want to consult Daniel Kahneman’s newest book, *Thinking, Fast and Slow* (New York: Farrar, Straus & Giroux, 2011), which should be requisite knowledge for every helping professional. Kahneman’s book provides further depth about the cognitive science arguments that Gambrell lays out and is a good source for the reader who wants to read, beyond Gambrell, about the latest knowledge about human cognition and how it affects human judgment and behavior.

The final section of the book, “What You Can Do,” is a treasure trove and coherent synthesis of how professionals can enhance their intellec-

tual argument skills. These chapters provide an excellent integration of logic principles and fallacies; critical thinking; elements of a formal, rational argument; inductive and deductive reasoning; Socratic reasoning; threats to internal validity of scientific studies; and the range of argument and explanation types. Every student in the helping professions should master these techniques, and it is a worthy review for practicing professionals and scientists.

Overall, even if the exposition is overdone at points with too many obscure examples and extensive descriptions of propaganda, this book will raise awareness of the distortions of truth that accost us from every direction in our professional lives. It gives us insight as to why faulty thinking is a universal human predisposition and how each professional can improve his or her thinking for the benefit of clients and the efficiency and efficacy of the services provided. With this book, Gambrill tills the ground she has been gardening for many years; she carefully turns over and sifts the fields, highlighting the most potent factors that produce a strong crop of knowledge. This book is worthy reading for any helping professional and for the motivated consumer of helping professions.

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Hound Pound Narrative: Sexual Offender Habilitation and the Anthropology of Therapeutic Intervention. By James B. Waldram. Berkeley: University of California Press, 2012. Pp. 280. \$68.95 (cloth); \$31.95 (paper).

James B. Waldram goes “down with the hounds” (x) in his ethnographic account of a Canadian treatment unit for incarcerated sex offenders, nicknamed the hound pound. The hound, Waldram tells us, is prison slang for “sexual offender”; hound pound refers to specific unit within the prison for sexual offenders. Over the course of 18 months of participant observation, Waldram conducted interviews with 35 persons incarcerated to understand the experience of receiving treatment in a carceral-therapeutic setting. This federal prison unit administers an 8-month cognitive behavioral therapy (CBT) treatment intervention, in which the primary goal is to reduce reoffense and recidivism amongst sex offenders. Waldram suggests that the thorough accounts of the day-to-day in this unit are intended to inform better conversation around public safety and the release of sex-

ual offenders into communities posttreatment. He is particularly interested in the seemingly paradoxical environment of both therapeutic and punishment agendas; he is explicit that the text is not aimed at determining the efficacy of such programming on reducing recidivism.

While Waldram is an anthropologist writing within the subfields of psychological and medical anthropology (dealing primarily with narrative theory and cognitive science), this text contributes to other disciplines as well. Given the clinical nature of the treatment unit and CBT intervention, Waldram's account is useful for both practitioners and researchers in fields such as psychology, social work, and the forensic sciences that are concerned with the implementation and fidelity of therapeutic models, specifically in carceral settings and with mandatory clients. The concerns raised by Waldram are especially relevant, since rehabilitative frameworks are seeing a comeback in the attempt to reduce mass incarceration in the face of prison overcrowding, fiscal austerity, and the emergent political consensus that the costs of poor recidivism rates are unsustainable. This text also contributes to broader conversations in the field of political economy and social theory regarding new techniques of punishment and penalty in contemporary carceral states, which demand a renewed self-reflexivity that maps onto (however unevenly) the entrepreneurial style of postrelease employment and livelihood. Further, while Waldram does not explicitly frame it this way, *Hound Pound Narrative* contributes to the lack of qualitative prison research (particularly ethnographic studies) available in North America. As Waldram suggests, there is limited research on carceral settings not only because it is difficult to gain access but also because many researchers avoid prison research because of fears of working with so-called difficult populations.

Waldram does not organize the text by linear duration of the treatment program—the book does not start at the beginning of one 8-month treatment cycle and end on the day persons incarcerated are released from the unit following their completion of the program. Rather, Waldram intentionally avails his reader with a disjointed account of the treatment experience, reflecting the sometimes chaotic and nonlinear implementation of the intervention; some leave the program early or arrive late, some wait around for days before treatment begins, and many leave the treatment unit not to return to the community but rather to be moved to another prison. Instead, Waldram loosely frames the book around the three presentations that those incarcerated are required to perform for peers and

treatment staff: the Autobiography, the Crime Cycle, and the Relapse Prevention Plan. These three tasks are designed to examine and critique their narratives around their life stories and criminal backgrounds in strict terms of the treatment language of CBT. Waldram supplements these tasks with additional observations, analyses, and dialogue from interviews, describing the space of the unit, the roles of treatment and prison staff, and the daily routine of those incarcerated outside of programming. Despite the absence of interviews with staff and correctional officers, Waldram's focus on the incarcerated experience through both observation of the implemented programming, as well as interviews with persons incarcerated about their experiences of treatment, provide the reader with a well-rounded understanding of the power dynamics present in this unit.

Driven and informed by these data sites, Waldram outlines three primary goals of the text. The first is Waldram's attempt to fill the "forensic 'black hole'" (223) in ethnographic research of the experience of therapeutic treatment. Waldram notes a lack of qualitative accounts of what the day-to-day of receiving treatment is like for clients, especially in a prison setting, that details the reception of therapeutic models and the potential for client transformation. In utilizing a "person-centered" (9) approach in the interview process, Waldram seeks to unveil the experiences of individuals undergoing the process of treatment rather than the institution or treatment unit as the primary object of analysis. Second, Waldram endeavors to provide an understanding and critical analysis of the actual implementation of CBT on this unit, suggesting that there is some dissonance between therapeutic and punishment agendas. The final goal of the book is an exploration of the tensions between truthful discourse and the use of narrative in forensic treatment. Working from scholars of narrative theory such as Jerome Bruner (16), this book further examines the struggles between paradigmatic modes and narrative in this setting. But Waldram's overarching goal, and the broader theme of the text, is the assertion that treatment units such as the hound pound are more about habilitation rather than rehabilitation, since those incarcerated are not being restored to a previous state but rather potentially engaged in a transformative, tutelary process that desires to produce moral subjects. We believe Waldram is successful in exploring these themes throughout the book, and both the reliability and intensity of his accounts are achievements within the analytic parameters that the author establishes for himself.

While Waldram is successful on these terms, there are a few minor limitations to be noted. Many of the limitations are perhaps due to preferences of modes of analysis, and while no author should be held to these perspectives in terms of failure, we do think that there are enough shared theoretical objectives within the text that there is confidence that these limitations expand on the author's intentions. First, some consideration should be given to the fidelity of implementation to the CBT model; there is little discussion of how the theoretical model of CBT and its actual groundedness allows for such fidelity beyond the disruptions of carceral imperatives. Such an analysis might require more focus on staff, funding, and resources that allow for fidelity to the CBT model but would answer how the experience of receiving treatment is dependent on how CBT gets reworked in the carceral setting. Second, while Waldram appears to be concerned with the particular sociohistorical conditions, he neglects to address the present conditions that bring this form of therapeutic intervention into a carceral space, as well as the impulse to treat sexual offenders. Though the author does detail the popularity of this particular form of inmate assessment, such as the focus on criminogenic factors to offending and the contemporary tensions in scientific models and best practices in implementing treatment, the reader is left curious about the arrival of this state-crafted response, particularly given the public outrage surrounding sexual offenders. Such questions are relevant to Waldram's account, as he cites concerns with the modern prison in an era of the "conjoining of the prison and the psychiatric hospital or asylum" (29). Why treatment in prison, and why now?

Waldram does usefully identify the possible disconnect between public desires and state funding, as he suggests that the state decision to treat "sexual offenders" must fight against the irrational civil society/public push back to this classification of criminals. For instance, in the chapter titled "A Pretty Shitty Place out There," Waldram discusses dealing with "an angry and fearful civil society" (213) that meets those leaving the program. He notes that "the [enraged civil society] has commandeered its own technology to circumvent policies that that state has put in place to balance community and offender safety. The public, it seems, cares not a whit about offender safety" (215). In this analysis, both the role of the state and civil society are flattened: civil society becomes the reactionary location of moral panic, whereas the state supposedly aims at protecting sexual offen-

ders under the sensibility that sexual offenders are citizens, too. Thus, the state here is merely a static enforcer, calmly institutionalizing a counter-response to a public consumed by contemporary vigilante attitudes. While the public may indeed be panicked, the state and its actions seem to lose complexity in their role as a buffer. Given Waldram's attention to the dynamics of power, it is worrying that such little attention is paid toward the multiple processes in criminalizing, treating, and releasing sex offenders that allow for state powers also to be indicted or involved in, or even contributing to, moralizing campaigns of public panic. Such a criticism is not to suggest that the state should be the object of analysis, nor that the state should too be flattened as an agent of coercion for the purpose of functionality, but rather that the rendering of public panic and state involvement should be embedded in the same critical standpoint that he employs in understanding the discursive power relations present within the unit. Further, accounting for these forms of state power doesn't necessarily render them coercive or require the absence of resistance; it does suggest that the assumed paradox of the therapeutic and the carceral can also be read as a productive form of statecraft rather than merely a contradiction.

Additionally, Waldram does not question using the term "sex offender" in this setting. Waldram alludes to CBT intervention as citizen forming, stating that the "intended cumulative effect of the treatment program . . . is to attempt to create a new sense of morality, to make those incarcerated 'fit' or, in Foucault's terms, 'useful' as members of society" (225). While Waldram's account of the hound pound provides evidence for the lengthy formation of the juridical subject—formed, contested, and resisted through the dynamics of the prison functions such as the file, the parole officer, and the treatment staff—it does not consider the unique role of the discourse of deviancy that may reveal the productive elements of this subject formation for the continuation of particular forms of punishment. This limitation is merely a cautionary statement in taking for granted the moralizing project that captures the "sexual offender" as the disruption in "outside" community that the treatment seeks to rectify. The critical form that Waldram takes to illuminate the tensions between compliance and authenticity, or adherence and reflexive transformation, would also be useful when applied to his moralizing conversations of public safety—perhaps it is not the prison that is caught in this responsive paradox of this caring yet punitive system that ultimately seeks to eradicate the subject "sex offender" but rather the prison as a necessary and productive space to redefine the

moralizing impulses of the state in the detainment of seemingly harmful subjects.

This focus on the “sexual offender” may not necessarily be a fault of the text; it is likely that the difficulty of gaining access to the prison terrain necessitated participant observation in therapeutic units that may be more inviting to such descriptive evaluations than the general population or areas of the prison that are less concerned with nuanced intervention. But in the absence of making the peculiarities of the subject formation within the criminal classification of “sexual offenders” relevant to the overall goals of the text, the author takes a shortcut by ushering a pedestrian discourse that concludes that “sexual offenders” are the pariahs of the public. It is through this analysis of the moral panic of society that Waldram negligently frames the urgency of his ethnographic accounts. Because Waldram warns us that “sexual offenders” may soon be our neighbors, he ultimately panders to a public safety panic that flattens and dismisses the possible complexity of the “sexual offender” as a historically significant demographic that thickens the contemporary beckoning and revival of the therapeutic intervention of criminality.

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Voices for Children: Rhetoric and Public Policy. By William T. Gormley Jr. Washington, DC: Brookings Institution Press, 2012. Pp. 224. \$24.95 (paper).

One in five American children lives in poverty, and every day these children face hardships and obstacles that limit their future potential in terms of earnings, health, and general well-being. Yet, this harsh reality is rarely reflected in our political discourse, which nonetheless holds children up as a particular deserving, valuable, and important group of citizens. It is this paradox that motivates William T. Gormley Jr.'s recent book, *Voices for Children: Rhetoric and Public Policy*. In it, Gormley characterizes children as “beloved but neglected” (1), with the deck stacked against them in American policy making due to their inability to vote, as well as the fragmentation of policy-making authority across and among levels of gov-

ernment, the current political gridlock that constrains policy output, and the absence of strong government institutions explicitly designed to protect children.

Since these adverse institutional and political factors are so hard to change, Gormley focuses our attention on something more malleable: the political rhetoric used to support children and children's programs. Gormley calls for development of better and more persuasive arguments than those used in the past, and he undertakes a series of empirical studies to describe both the prevalence and effectiveness of different policy arguments on behalf of children's programs. Using a variety of research methodologies—including coding Congressional testimony, interviews with advocates and Capitol Hill staffers, case studies of state policy making, public opinion survey experiments, and more—Gormley looks at the use of various policy arguments in different policy domains and levels and branches of government across a 50-year time period. This multimethod approach provides a strong empirical basis to inform an understanding of how politicians, staffers, policy analysts, advocates, the media, and the American public frame children's policy, and it generates rich, timely, and valuable evidence that can be used by child advocates to develop stronger arguments in future debates over child health, child poverty, child welfare, and education policy.

Gormley's project draws from the literature on policy argumentation and issue framing. But it does not engage these debates directly. Its primary aim seems to be application of the literature on political rhetoric (and use of a range of common methodologies for studying issue frames) to understand how best to position children's policy in the American political discourse. For this reason, it is a book most likely to appeal to researchers, advocates, and policy makers already focused on children's policy. Yet, it also provides a nice model for those interested in researching the prevalence and impact of issue frames in other policy areas.

At the beginning of the book, Gormley identifies four widely used issue frames—the helping hand, equal opportunity, prevention, and investment—which serve as an organizing framework for the various empirical investigations in the following chapters. In defining these policy arguments, Gormley draws a crisp distinction between two types: moralistic and economic. Moralistic arguments focus on obligations toward children regardless of consequences, the helping-hand frame focuses on moral responsibilities to assist those in need, and the equal opportunity frame embraces

the norm that each citizen is entitled to the same opportunity to advance and succeed in this country. In contrast, economic arguments justify action by focusing on the consequences of that action, rather than any moral imperative. The prevention frame argues for the benefits that can be reaped by avoiding bad things from happening, and the investment frame encourages spending now to reap benefits in the future.

Gormley systematically codes congressional testimony by key witnesses from presidential administrations over the past 40 years and tracks the testimony of one leading child advocate active during this entire time period. In so doing, he documents a shift away from a heavy reliance on moralistic arguments (having to do with rights, obligations, and compassion) toward a growing use of economic arguments (which focus on whether societal benefits exceed costs). Drawing on interviews with 50 state-level child advocates, Gormley is able to show the distribution of these economic arguments among policy areas. They are more common in early education and health, where there is more extensive evidence of costs and benefits, than in child welfare, which typically focuses on the need to protect vulnerable children. He also finds that economic frames are more likely in legislative politics than in the legal arena. Thus, although economic arguments are increasingly prominent, they are not used consistently by strategic advocates or policy makers.

By documenting these trends in framing children's issues, Gormley provides rich description. Yet, this description begs the question of how effective these alternative frames are in shifting support for children's policy. Gormley takes up this critical question in a series of empirical investigations using a mix of methods to evaluate the efficacy of alternative issue frames. First, he conducts two randomized survey experiments that allow him to draw inferences about the causal effect of small variations in how policy debates are framed. These frames were presented in specially designed newspaper-style articles that employ pro-child frames alongside competing arguments as a voter may encounter them in the real world. In both a convenience sample of university freshmen and a nationally representative sample of Americans, Gormley found that respondents were more likely to support creation or expansion of children's programs when they were presented with newspaper articles employing economic frames, compared to those who read articles based on moralistic frames. This was particularly the case for key segments of the American electorate: moderates, independents, and other swing voters. An important exception is

equal opportunity, which, despite being classified as a moralistic frame, generates greater support for the children's programs than most of the other issue frames. In fact, in the end, Gormley recommends a long-form policy argument that combines the "best economic frame available (investment) and the best moralistic frame available (equal opportunity) and make them even more powerful" (162).

Though small in magnitude, these experimental findings are consistent with the differences in support between Democrats and Republicans and among different demographic groups being much larger than any framing effects. Gormley acknowledges this, undertaking four case studies to see how these issue frames fare in the real-world policy-making process. He focuses on four children's policy debates: juvenile justice reform in Connecticut, early childhood education in Utah, taxes and education in North Carolina, and home visiting in Pennsylvania. In these rich descriptions of the politics structuring these policy debates, Gormley uncovers "powerful political and economic forces that conspire against the adoption of eloquently defended policies and programs that benefit children" (145). He concludes that strong rhetoric makes a difference, but its success also depends on advocates' legislative and coalition strategies, endorsements from politicians, the quality of evidence in support of the program, and favorable economic conditions.

Finally, Gormley undertakes one more empirical investigation to compare alternative frames more directly in order assess how they play out among the policy-making community. He conducts semistructured interviews with both Democratic and Republican congressional staff members—27 individuals who serve as committee staff and hold responsibility for policies related to children—to capture their evaluation of the effectiveness of alternative policy arguments in favor of, and opposed to, expansion of children's policy. Like the general public, both equal opportunity and investment frames appealed to staffers of both political parties. Nevertheless, as seen in the state-based case studies, the success of these frames depends on external conditions, as well as on politician's personal experiences, exposure to constituents' compelling stories, and other softer evidence shaping policy stances on children's issues.

From this book, the reader can take away both the salience of issue frames in making sense of children's policy making and a clearer understanding that issue frames are only one of many factors determining which policies are actually enacted. Gormley helps the reader integrate these in-

tertwined conclusions by reconceptualizing framing as part of, not separate from, the political process shaping policy outcomes. When advocates adopt a particular frame, they align themselves, either implicitly or explicitly, with a particular coalition and advance a particular set of values and priorities. In this way frames serve as “a way of engaging in the political process, not a doomed effort to evade or suppress politics” (146). This thought-provoking book can assist advocates in critically evaluating how they can best be engaged in this process.

Gormley’s study can also inform researchers about the role of evidence in policy making. Gormley highlights the common tendency for policy arguments (in the academic literature, as well as in practice) to connect values and public policy choices but overlook the need for evidence linking these two. Therefore, Gormley defines a “full-fledged policy argument as a statement that explicitly or implicitly connects values, evidence, and public policy choices” (12). With growing attention to evidence-based policy combined with accumulating research on the effectiveness of children’s policies, this focus on how evidence plays into policy arguments is an important advancement.

In the public opinion survey experiments, Gormley identifies greater support for policies that used data to quantify the benefits of investing in children’s programs. Similarly, the availability of evidence seems to shape advocates’ choices about how to structure their policy arguments. In fact, the choice to use an economic policy frame seemed dependent on whether rigorous evaluation results and/or cost-benefit-style findings were available. In this way, Gormley’s distinction between moralistic and economic issue frames gets confounded with the availability of evidence and how it is used in policy making. For example, he notes that an advantage of “moralistic arguments is that they do not wilt in the face of ambiguous evidence or no evidence at all” (154). And in some cases, moralistic arguments are also strengthened by strong research evidence that bolsters understanding of the issue and reinforces the moral imperative to take action and benefit children. In fact, Gormley addresses this briefly, citing the accumulating research on limited social mobility in the United States and how this evidence is being used to bolster equal opportunity arguments for policy change.

Researchers who study children’s policy have made great strides in recent decades in terms of documenting the effects, as well as costs and benefits, of various programs and policies. This evidence is clearly im-

portant for making economic claims, as in the investment frame Gormley identifies. Yet, my assessment of the current state of evaluation research is that it does less to bolster moralistic claims about equal opportunity and other normative imperatives to expand the social supports for children and their families. Broadening our research agenda—and partnering with basic social science researchers who may already be asking related questions—can help generate the evidence base needed to effectively combine moralistic and economic policy arguments on behalf of America's children.

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Educational Delusions: Why Choice Can Deepen Inequality and How to Make Schools Fair. By Gary Orfield and Erica Frankenberg and Associates. Berkeley: University of California Press, 2013. Pp. 317. \$70.00 (cloth); \$29.95 (paper).

Gary Orfield occupies a singular niche among scholars of education. For nearly 4 decades, long after the attention of the world has shifted, he has continued to argue that there is an 800-pound gorilla in the room that no one wants to see called “segregation.” In this anthology, he and coauthor Erica Frankenberg place this argument squarely at the center of contemporary debate on schooling and inequality, a debate in which the issue of segregation is almost entirely invisible. For at least the past decade, the most coherent and probably most influential position in this discussion has been that of the neoliberal advocates of free-market reforms. Their argument contends that public schools fail because they are inefficient and sometimes corrupt monopolies run by unmotivated employees, a situation that can be rectified, they believe, by running schools like businesses. That means, in part, treating citizens like consumers and giving them choice in the form of vouchers, charter schools, magnet schools, and voluntary transfer programs. Consumer choice will strengthen good providers and drive bad ones out of business so that the unmotivated become the unemployed. The last five presidential administrations have supported choice. Critics counter by saying that choice is a simplistic and narrow vision of change and one not much supported by results. In practice, they contend, choices are so constrained as to be meaningless, if not dangerous; choice seldom means choosing an academically strong, affluent suburban

school—it usually just means choosing another impoverished inner-city school with a different governance structure.

This is an intense and bitter debate, and the authors are careful to avoid taking a side: “Choice has a thousand different faces, some treacherous and some benign” (3). They contend that choice policies in fact can benefit poor and minority children but only when there is a level of intentionality about what they call “civil rights issues.” Unfortunately, intentionality about race seems rare. More often, choice advocates behave as if choice is a solution in and of itself. Unregulated choice, the authors point out, has been a tool to preserve inequity at least since the 1950s, when many Southern states used Freedom of Choice plans to delay school desegregation. The first use of vouchers may have been in Prince Edward County, Virginia, where in 1959, rather than desegregate schools, they shut down all schools, providing vouchers that whites used to subsidize a system of private segregationist academies, while black students just went without schools for 5 years. In Northern cities, one of the most popular instruments of desegregation was magnet schools, but over time, as federal pressure subsided, magnets tended to shed the explicit policies of racial balance they once had, often becoming enclaves for children of the privileged.

The book is divided into three main sections. The first contains articles about places where the authors feel choice has been well implemented, including Berkeley and Tampa. The second section documents the various ways that charter schools, the flagship of choice policies, can exacerbate inequalities. The final section tries to understand how choice can support integration.

There is little evidence in these articles (or elsewhere) to suggest that choice can improve schools. However, in a context where schools are already considered strong and political currents are supported, carefully chosen choice policies can be used to increase diversity. Berkeley, of course, is a very distinctive and unique community in terms of its racial and political attitudes; Tampa is part of a city-county school system, which creates possibilities that don’t exist elsewhere, but those possibilities cannot be exploited without committed leadership. Indeed, one of the themes that might have been explored more deeply in a number of these pieces is the theme of the kind of local leadership it takes to make these policies stick. Similarly, the pattern of intense segregation associated with charters, especially for African American students (documented thoroughly in the chapter by Frankenberg and Genevieve Siegel-Hawley), should be framed

against issues of leadership. Given the amount and clarity of the data on this point, where does it fit into the priorities of the choice movement's leadership?

All the articles included offer considerable support for the contention that "there is no convincing evidence that color-blind choice makes any significant difference in student achievement" (29). Acknowledging great variation across implementations, they consider virtually all of the data available when they wrote, but data means largely test score data. Had more emphasis been put on a different metric, such as high school graduation, the picture might have been more complex. Charters tend to be small schools, and small schools graduate more students.

No place illustrates the dangers of overreliance on test scores better than New Orleans. The chapter on New Orleans by Baris Gumus-Dawes, Thomas Luce, and Myron Orfield is among the most illuminating I have seen on what has happened there since Hurricane Katrina. New Orleans is the most heavily chartered school system in the country and has been repeatedly hailed as a system that has markedly improved—the good that came out of the storm. The apparent advantage in test scores turns out to be closely associated with advantages in school composition. Some charters have explicit admissions criteria, and even those that do not shape their student bodies through "enrollment processes, discipline and expulsion practices, transportation policies, location decisions, and marketing strategies" (164). The result is that in New Orleans, even more than in other cities, charters seem to be educating a disproportionately low number of the hardest-to-reach students. The city that has become the national poster child for choice looks like a more elaborate version of the usual race- and class-sorting machine.

Of the various strategies for making choice more educationally effective, the Hartford, Connecticut, program of taking elaborate measures to see that poor parents were well-informed about choices available to them seems to be relatively replicable. Many articles refer to the promise of interdistrict transfers, but it is hard to see where the political will for that is going to come from at the local level. In the chapter entitled, "The Story of Meaningful School Choice: Lessons from Interdistrict Transfer Plans," though, Amy Stuart Wells, Miya Warner, and Courtney Grzesikowski report that when the stars have aligned, the benefits of choice are evident, but the successes of the process are unclear. They also point out that that

kind of collective policy doesn't accord with a tradition of seeing issues of inequality as functions of individual character.

While the authors strive mightily to be evenhanded in their discussion of evidence, the cumulative effect of their attempts to examine the empirical reality beneath neoliberal justifications for choice is to make those claims seem hollow, even cynical, democratic rhetoric that clothes elite priorities. (How many of the people so anxious to give poor people a choice of schools also support voter suppression initiatives?) Lest there be any doubt, Orfield concludes with a useful distillation of how choice could support integration, taking Presidents Clinton and Obama to task for blindly following their predecessors in unregulated choice, while ignoring the promise of magnet schools: "The worst outcome would be to create a parallel system of inferior segregated schools that sapped funding from remaining neighborhood schools, call it choice, and congratulate ourselves on solving a problem. Unregulated choice tends to comfort the privileged, take pressure off demands for change in the larger system, protect more-affluent schools from any change, and offer illusory opportunities for the poor, blacks and Latinos" (269). In the Greek myth, Cassandra, having angered Apollo, was cursed to always speak the truth but never be believed. There are important truths here, but there is no reason to believe that the larger argument embedded about the structural significance of race is going to get much traction. Be that as it may, the book serves a valuable purpose in taking a careful, well-supported look at a dominant policy discourse from an angle few have considered. It does the important work of adding a level of thoughtfulness and complexity to a frustratingly simplistic debate.

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Brief Notices

NEW AND UPCOMING TITLES OF INTEREST TO SOCIAL WORK AND SOCIAL WELFARE SCHOLARS

Advisory in Urban High Schools: A Study of Expanded Teacher Roles. By Kate Phillippo. Palgrave Studies in Urban Education. New York: Palgrave MacMillan, 2013. Pp. 216. \$90.00 (cloth).

The Changing Politics of Education: Privatization and the Dispossessed Lives Left Behind. By Michael Fabricant and Michelle Fine. Boulder, CO: Paradigm, 2013. Pp. 224. \$110.00 (cloth); \$32.95 (paper).

Coming Up Short: Working-Class Adulthood in an Age of Uncertainty. By Jennifer M. Silva. New York: Oxford University Press. Pp. 208. \$29.95 (cloth).

Decolonizing Social Work. Edited by Mel Gray, John Coates, Michael Yellow Bird, and Tiani Hetherington. Burlington, VT: Ashgate. Pp. 380. \$119.95 (cloth).

The Electoral Consequences of Third-Way Welfare State Reforms: Social Democracy's Transformation and Its Political Costs. By Christopher Arndt. Amsterdam: Amsterdam University Press, 2013. Pp. 220. \$57.50 (paper).

Immigrant Women Workers in the Neoliberal Age: Interdisciplinary Perspectives on an Underrepresented Labor Force. Edited by Nilda Flores-González, Anna Romina Guevarra, Maura Toro-Morn, and Grace Chang. Champaign: University of Illinois Press, 2013. Pp. 320. \$95.00 (cloth); \$28.00 (paper).

Immigration, Poverty, and Socioeconomic Inequality. Edited by David Card and Steven Raphael. New York: Russell Sage Foundation, 2013. Pp. 484. \$55.00 (paper).

Kinship and Cohort in an Aging Society: From Generation to Generation. Edited by Merrill Silverstein and Roseann Giarrusso. Baltimore: Johns Hopkins University Press, 2013. Pp. 360. \$65.00 (cloth).

Legacies of the War on Poverty. Edited by Martha J. Bailey and Sheldon Danziger. New York: Russell Sage Foundation, 2013. Pp. 324. \$39.95 (paper).

Mapping "Race": Critical Approaches to Health Disparities Research. Edited by Laura E. Gómez and Nancy López. New Brunswick, NJ: Rutgers University Press, 2013. Pp. 246. \$80.00 (cloth); \$27.95 (paper).

Occupational Labor Shortages: Concepts, Causes, Consequences, and Cures. By Burt S. Barnow, John Trutko, and Jaclyn Schede Piatak. Kalamazoo, MI: W. E. Upjohn Institute, 2013. Pp. 209. \$40.00 (cloth); \$20.00 (paper).

Poverty in America: A Handbook. By John Iceland. Berkeley: University of California Press, 2013. Pp. 226. \$27.95 (paper).

Redefining Rape: Sexual Violence in the Era of Suffrage and Segregation. By Estelle B. Freedman. Cambridge, MA: Harvard University Press, 2013. Pp. 416. \$35.00 (cloth).

Reimagining Global Health: An Introduction. Edited by Paul Farmer, Arthur Kleinman, Jim Yong Kim, and Matthew Basilio. Berkeley: University of California Press, 2013. Pp. 504. \$39.95 (paper).

Social Capital and Rural Development in the Knowledge Society. Edited by Hans Westlund and Kiyoshi Kobayashi. New Horizons in Regional Science series. Northampton, MA: Edward Elgar Publishing, 2013. Pp. 352. \$145.00 (cloth).

State of the Union: A Century of American Labor. By Nelson Lichtenstein. Revised and expanded edition. Princeton, NJ: Princeton University Press, 2013. Pp. 400. \$22.95 (paper).

Toxic Schools: High-Poverty Education in New York and Amsterdam. By Bowen Paulte. Chicago: University of Chicago Press, 2013. Pp. 328. \$95.00 (cloth); \$32.50 (paper).

Women and Poverty: Psychology, Public Policy, and Social Justice. By Heather E. Bullock. Malden, MA: Wiley-Blackwell, 2013. Pp. 216. \$34.95 (paper).

Work Sharing during the Great Recession. Edited by Jon C. Messenger and Naj Ghosheh. Northampton, MA: Edward Elgar Publishing, 2013. Pp. 320. \$135.00 (cloth).

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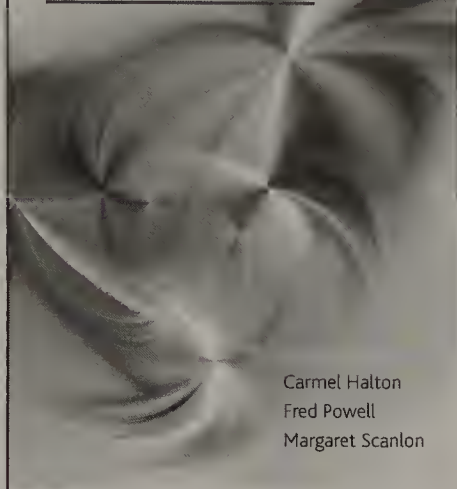
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CONTINUING PROFESSIONAL DEVELOPMENT IN SOCIAL WORK



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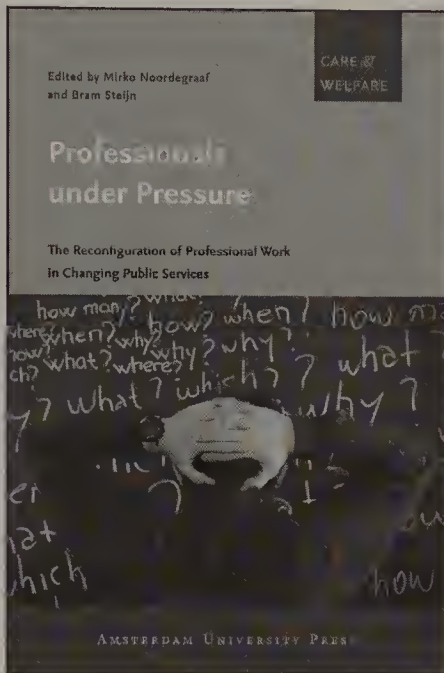
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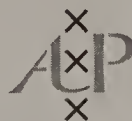
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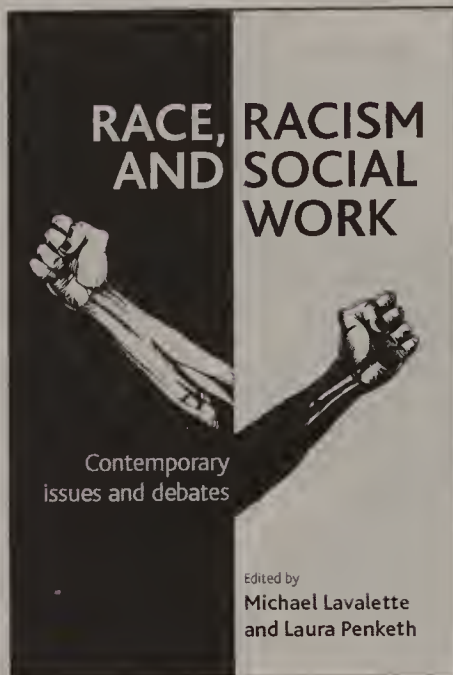
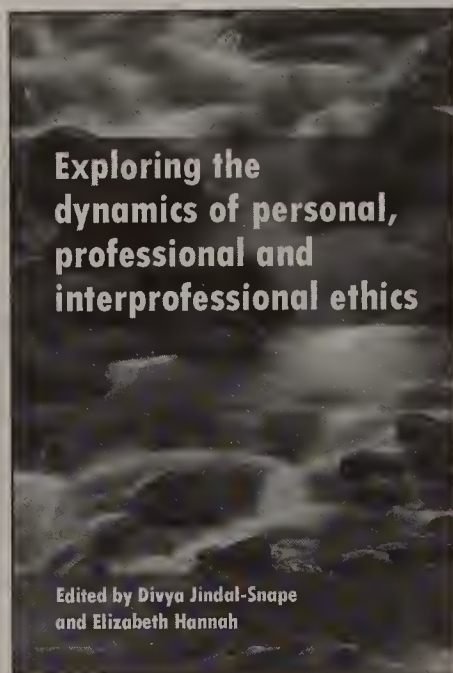
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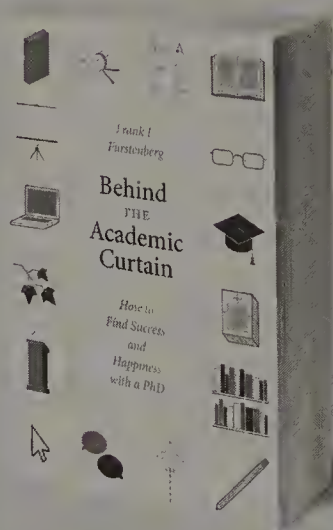
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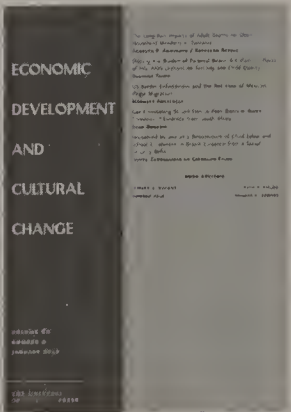
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